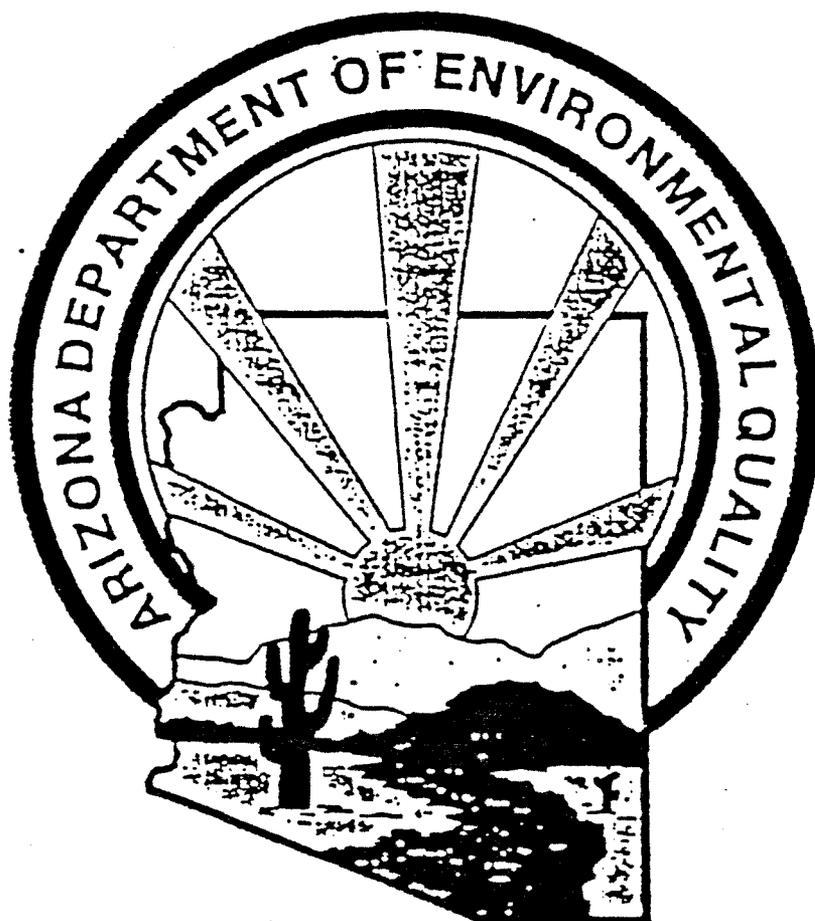


STATE OF ARIZONA

PROJECT S.L.I.M. REPORT ON THE

DEPARTMENT of ENVIRONMENTAL QUALITY



July 2, 1992

DEPARTMENT OF ENVIRONMENTAL QUALITY

PROJECT SLIM

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July 2, 1992

Mr. Edward Fox
Director
Department Of Environmental Quality
2005 North Central Avenue
Phoenix, Arizona 85004

Dear Mr. Fox:

The Governor's Project SLIM review of your agency has been completed, and the project team is pleased to present you with this summary of our findings and recommendations. The study was initiated on November 8, 1991 and the field work was completed approximately February 3, 1992.

This summary restates the objectives of the review, the approach which was used, and highlights the major changes recommended as a result of the study. It quantifies the potential benefits for your agency and the public at large and summarizes the key implementation actions and legislative support needed to convert the proposed recommendations into actual benefits. The summary is followed by the detailed findings and recommendations.

In total, the recommendations identify approximately \$7.6 million in benefits for your agency.

OBJECTIVES & GOALS

The overall objective of this study was to find ways to improve the delivery of services in the Arizona Department of Environmental Quality (DEQ). The goals were to improve the process of delivering public services and reduce the cost of government whenever and wherever possible. Impediments to prompt and effective services were to be identified for removal, and structures established which support the long term goal of continuous improvement using total quality management concepts throughout the agency.

APPROACH

We reviewed the shelf data from the Department to understand the mission, responsibilities, and workloads. A preliminary scoping and detailed diagnostic were performed. Interviews were conducted with all levels of management, supervision and selected technical and clerical positions. We observed work

activities and computer system use, and obtained either actual or estimated work measurement standards for the processes which were reviewed. We discussed procedural findings with work center managers and supervisors.

Exhibit 1, Interview List, lists the 145 individuals we contacted during the review. Many of these individuals were contacted more than once to confirm our understanding of their areas of responsibility and to discuss the feasibility of proposed process changes and organizational structures. Because of their cooperation and participation, the study team and your managers have a high level of confidence that these recommendations can be successfully implemented.

Exhibit 2, Current Organization Chart, shows the structure of each division as it was presented to us at the time of the review. Changes have occurred during and since Project SLIM, and these are included to provide the reader a frame of reference and a benchmark against which all changes can be measured.

SUMMARY FINDINGS & RECOMMENDATIONS

Major potential savings come from combining Units or Sections where there is duplication or fragmentation of workloads. These patterns were found in all three major divisions including Air, Waste, and Water Quality.

Air Quality Division

In the Air Quality Division, we recommend combining the Permit and Compliance Units, and the air modeling function of the Air Assessment Section, providing a single unit for public interaction, a reduction of inter-unit paperwork and duplication of effort.

Providing, and in most cases requiring, a pre-application conference with permit applicants can both reduce the cycles of DEQ-applicant interaction and shorten the permit process by as much as a year. This conference would include representatives of all appropriate divisions, to replace up to three separate application conferences under the present structure.

Revising the draft permit review process and modifying the public notice procedures would further improve service to permit applicants and reduce costs.

We recommend changes in the emission testing "waiver" process in the Vehicle Emissions Section by imposing a \$3.00 fee for waiver test, thereby collecting fees which are now lost to the State. Combining

the Quality Assurance Unit and the Phoenix Operations Unit and structuring it similar to Tucson Operations will further increase staffing flexibility and reduce costs.

The implementation of these recommendations will require cross-training of the personnel in those Units or Sections which are combined, but otherwise may be implemented on instruction from the Director.

Waste Division

In the Waste Division, major savings are available by streamlining the Underground Storage Tank (UST) Section. We recommend reducing one level of supervision by flattening the vertical structure, combining functions, and transferring some of the administrative activities to the Administration Division. This will result in a savings of about \$1.58 million in both cost avoidance and reduction. This will also accelerate the processing of cases by establishing a one-stop processing and follow-up point to handle all actions required within the UST Section regarding complaints, release reports, compliance, enforcement, responses to public inquiries and reporting.

Significant savings from combinations in the Waste Division include the Pre-Remedial and Department Of Defence Units, the inspections and compliance functions in Emergency Response, and the Solid and Special Waste Units.

Water Quality Division

In the Water Quality Division, we recommend eliminating the Ground Water Hydrology, Program Coordination & Certification, and Field Services Sections and consolidating them in Compliance and Water Assessment Sections together with transferring some of the planning functions to the Deputy Director, thus creating a new Central Planning Section. This section will be a centralized planning office for the DEQ which will provide management with appropriate information from which long term goals and objectives may be evaluated on a periodic basis.

Within the Compliance Section we recommend re-combining the two Drinking Water Units which will improve response to system - customers who are experiencing temporary difficulties with their system, or sampling/testing modalities.

Administration Division

The Labor Activity Reporting System (LARS) currently does not have a fully automated computerized system to capture labor costs on a site specific basis. We concur with the study being done by DEQ and support the plan for automating the cost recovery system by July 1, 1992. Once implemented, we believe it will save the agency over \$35,670 directly in manpower and will help in collecting costs from permit holders which are estimated in millions.

Placement of the audit function in the Administrative Division could be viewed as inhibiting an accurate and unbiased evaluation of financial operations. This is not to say that the present organizational assignment of the audit function has created any problems and no evidence was found which might so indicate. However, we recommend that the audit functions be in the Deputy Director's Office. This will assure the Director that the auditing functions are performed without an appearance of bias or influence and will enhance the independence and perceived objectivity of the audit reports.

Most of the tasks performed in DEQ do not have work or job standards. The lack of standards makes it difficult to determine staffing requirements and measure productivity. For example, the issuance of permits, inspections, ensuring compliance, testing and monitoring in Air, Waste and Water Divisions are measurable. The paper handling process in the Comptroller's Office, being repetitive in nature, is easily measured. Past experience with work measurement studies has shown there is at least a 15% improvement in operational effectiveness in those organizations where work measurement techniques have been applied and work standards established. We believe approximately 170 positions will be subject to work measurement standards. This will result in an additional savings of approximately 26 FTEs, or \$1,040,000 including ERE, after implementation is complete.

A comparison was made with other state agencies for payroll and budget functions. Based upon the number of transactions and the number of people employed, it was clear that DEQ has more people performing activities similar to those performed in other agencies. We recommend those functions be as effective as other state agencies.

GENERAL OBSERVATIONS

As this Team commenced its study of the Department of Environmental Quality, we learned that you had only been at the helm of the agency for (at that time) approximately five months. Having accepted a charge of making changes and improvements in the agency, there has been a continuous change in the organization and staffing of the Department, even while the Project SLIM evaluation study was being conducted.

The Team's recommendations, and the accompanying exhibits which describe them, are based on the situation as it existed at the time of the interviews and analyses. Some of the recommendations which are being submitted by the Project Team already are in the process of being implemented by you. Others may be altered in the final analysis because the context of the recommendations have been changed since they were prepared.

Implementation leadership will determine the achievement of maximum savings by putting in place the concepts proposed in this document, and resolving any differences which exist due to interim changes in the organization.

SUMMARY OF SAVINGS

The improved services and benefits outlined above are achieved through the 53 points discussed in this report. The recommendations apply to several areas such as organization restructuring, process changes, income enhancement, management controls, functional realignment, work measurement, public benefits, and staffing requirements.

Exhibit 3, DEQ Summary of Titles and Savings, shows the impact of each of the recommendations and includes increases in income, future cost avoidances, and present cost reduction. The magnitude of each is:

Savings Summary

Income Enhancement	\$ 34,300
Cost Avoidance	4,107,112
Cost Reduction	<u>3,557,056</u>
Total	<u>\$7,698,468</u>

Exhibit 4, Layering (Present & Proposed) compares Management layers before and after the Department's proposed restructure.

Exhibit 5, Recommended Organization Charts, shows the proposed structure of DEQ following the implementation of the recommendations. These structures are consistent with the recommendations, but are not the only possible structures which can achieve the improved service and benefits. Actual structures will be finalized as the recommendations are implemented.

Personnel Services savings may vary somewhat during the implementation phase of the SLIM Project. Redeployment procedures could, in some cases, result in "bumping down" which will reduce a portion of the savings. Further, since averages were used for the affected grade levels, these figures may not exactly coincide with the current salary of the individuals occupying the position in question.

IMPLEMENTATION

Implementation is the critical step in the process of achieving savings. Potential savings are often identified but not achieved when the implementation process is distracted by day to day activities, and managers shy away from the necessary reduction in staff. Successful implementations are marked by two things: a strong commitment from senior management to achieve as much of the savings as proves possible; and designation of implementation team leaders with the requisite mental toughness to see the task through to completion.

The implementation process is best carried on soon after the review process. This maintains momentum while the topics are fresh in people's minds. We estimate that most of the recommendations contained in the report can be implemented within a period of 18 months.

Mr. Edward J. Fox, Director
Department of Environmental Quality
Page 7

Our recommended Implementation Plan in Exhibit 6, DEQ Implementation Schedule, shows an implementation sequence and approximate duration for each recommendation. A detailed plan can be established at the outset of the implementation. Individual recommendation implementation requirements are shown with the recommendation in the detail section of this report.

There are three major components of cost associated with implementation. These are typically one-time costs and represent a reduction in first year benefits. They include the costs of current employee time during implementation, outside assistance, and employee redeployment. Outside implementation assistance can significantly improve the total value of benefits achieved, the probability that benefits will be achieved, and can reduce the total time necessary to achieve implementation through the use of focused, dedicated resources. These costs depend on the total scope of the assistance requested, and are not included in this individual agency report.

* * * * *

Mr. Edward J. Fox, Director
Department of Environmental Quality
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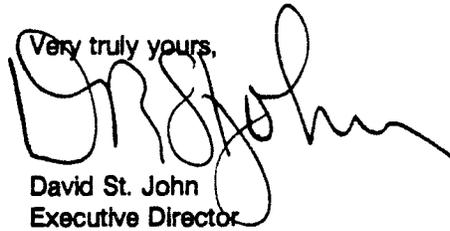
We wish to thank you as the Director of DEQ and your entire staff for their complete cooperation, participation, suggestions and comments, and support of our efforts during this study.

We appreciate the opportunity to be of service to the Governor and the SLIM Steering Committee in this endeavor. Should you have any questions regarding this report, please feel free to contact the Project Executive or any member of your Project SLIM Team:

- Ken Boyd, Department of Agriculture
- Les Jennings, Dept. of Youth Treatment & Rehab.
- William Riley, Department of Transportation
- Amjad Huda, Coopers & Lybrand

The Agency Director's comments follow this signature page.

Very truly yours,

A handwritten signature in black ink, appearing to read "D. St. John", written over the typed name below.

David St. John
Executive Director
Project SLIM



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

HIFE SYMINGTON, GOVERNOR
EDWARD Z. FOX, DIRECTOR

June 8, 1992

Mr. David St. John
Executive Director
Project SLIM
Capitol West Wing
1700 W. Washington
Phoenix, AZ 85007

Dear Mr. St. John:

The Arizona Department of Environmental Quality (ADEQ) is totally committed to the Governor's efforts to reduce costs by eliminating waste and improving the effectiveness of our work efforts.

To that end, my executive staff and I dedicated significant time over the past eight weeks working with the SLIM project consultants and the ADEQ State employee team. My goal had been to develop a SLIM report that would be a useful "strawman" blueprint for a more effective ADEQ.

During our review of the SLIM document, it became readily apparent that many new and/or inexperienced managers were interviewed due to the state of flux the agency was in at the time of the SLIM interviews. In addition, the time for the SLIM interviews was too short. As a result, a significant amount of the data gathered by the SLIM team was incomplete resulting in what I believe to be inaccurate analysis.

In the last draft of the SLIM report reviewed by ADEQ there are numerous areas with which I disagree. Examples of these differences are:

1. Calculation Approach - The report identified \$1,335,011 more in savings (see attachment) than I believe actually exist. This is attributable to four specific SLIM policies.
 - a) SLIM calculated savings from Grade 19 and higher positions at the mid-point of the salary range. Actual calculation of salaries by my staff for these positions produced a savings of \$495,413 less than reported by SLIM.

Note that ADEQ was established with 132 positions in FY 1987. Since that time the number of positions has grown by approximately 400%. These new positions were funded by the Legislature at entry level. Additionally, since FY 1987 the State has only funded pay increases two times - 3.5% July 1, 1988 and 4.5% July 1, 1990. Therefore, most of the positions at ADEQ are funded at a significantly lower level than the mid-point utilized by Project SLIM.

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- b) The SLIM report identifies cost avoidance of \$416,843 from 12 unfunded positions (many of which appeared with the designation of FROZEN on the ADEQ organization chart) and \$133,851 from five additional unfunded positions which were abolished in the FY 1992 budget by the Legislature but still appeared on the ADEQ organization chart in error.
 - c) The SLIM report identifies savings of \$114,857 from downgrading three positions. Administrative Rule R2-5-303 specifically states that "The salary of an employee in a position which is reclassified to a lower class, or in a class which is changed to a lower grade, and which is within the salary range of the new pay grade, will remain the same." Hence, no savings are generated from these three downgrades.
 - d) The SLIM report includes a reduction of \$1,040,000 for 26 unspecified positions at an average salary including employee related expenses (ERE) of \$40,000 per position to be achieved by implementation of work standards/work measurements. The average salary per position in ADEQ including ERE is \$33,306. Therefore, I believe the savings is overstated by \$174,047.
2. Source of Funds - The report did not acknowledge the difference between Federal funds, State dedicated funds and State General Fund monies. Of the savings identified in the report, most (approximately \$1.2 million in Federal funds and approximately \$2.2 million in dedicated funds) will not result in savings to the State General fund.
 3. State Match - The report did not acknowledge that much of the Federal funding that ADEQ receives requires State match. Of the savings amount identified by this report, approximately \$923,000 of General and dedicated funds are required for State match for Federal programs.
 4. Program Analysis - The report shows all Underground Storage Tank (UST) Program work to be remedial in nature. The SLIM Flow Chart incorporates parts of only four out of nineteen UST work processes. Thus, the recommendation to eliminate 49 positions is based upon limited analysis and would seriously reduce the current level of service of this program.
 5. Developmental Programs - During the last two legislative sessions, the Legislature established five new programs in ADEQ: Underground Storage Tanks, Recycling, Waste Tires, Pollution Prevention and Special Waste. In addition, the Legislature mandated increased staffing in FY 1992 for: 1) the Aquifer Protection Program to address the backlog of approximately 994 permits and 2) the Safe Drinking Water Program where 90% of the systems are out of compliance. All of these actions were initiated to protect human health and the environment.

Because of the amount of time required to design new programs, develop and promulgate rules, establish new positions and complete the hiring process, most of the positions associated with these new or enhanced programs were vacant at the time the SLIM team was conducting interviews and researching programs within ADEQ.

The SLIM report eliminated positions as cost avoidance if those positions were vacant at the time of the investigation. While efficiencies can be achieved in these programs, automatic elimination of FTE positions for newly created programs, which were established to protect human health and the environment, is not in the best interest of the State of Arizona.

Despite the differences in approach and analysis identified above, I am committed to implementing SLIM and to working out these differences during the implementation process. It is, however, critical that implementation be completed in a quality manner for two specific reasons:

1. Economic Development - Many of the recommendations were made in the areas of permitting and approvals which are critical to the economic development of this State. Therefore, overly optimistic reductions would directly impact the ability of businesses to open and the ability of real estate to be transferred in this State. Reductions in these areas should be approached cautiously.
2. Protection of Human Health and the Environment - The fundamental mission of this Department is to protect the environment and public health. In the areas of inspection and enforcement which are fundamental components of that mission, it is important that any reduction be looked at very closely.

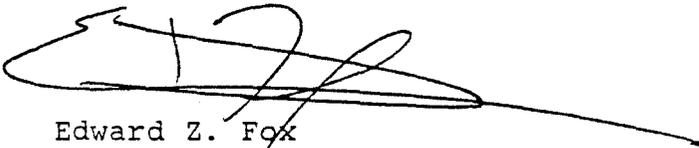
In an effort to implement SLIM in a quality way, I intend to create a steering committee made up of the Department's customers, including private industry and environmental groups, to oversee this implementation. Our implementation plan for SLIM recommendations will contain Office by Office and program by program evaluations of ADEQ's work processes. Development of these baseline data will be completed with the help of, and input from, the Steering Committee and knowledgeable staff in each of the program areas.

After completion of the implementation process, I expect that some SLIM recommendations will be implemented exactly as they are proposed, some recommendations will be implemented in concept, and other recommendations will not be implemented at all. Additionally, because our implementation plan will cover all aspects of ADEQ, I expect to add innovations and improvements that SLIM did not address.

For example, ADEQ's area of greatest inefficiency is its annual 17% employee turnover. The problem of attracting and retaining qualified employees increases costs not only to ADEQ but also to the regulated industry because permits are delayed. ADEQ exit interviews indicate that turnover is principally due to the disparity in pay between ADEQ environmental positions and similar positions in industry and local government. We have proposed to the SLIM Steering Committee, and the Steering Committee has agreed, that ADEQ retain some of the SLIM savings to be used to improve pay parity.

I hope this letter communicates my commitment to the SLIM process as well as my concerns about some of the specific components of the SLIM report. Thank you for your continuing personal courtesy.

Sincerely,



Edward Z. Fox
Director

Attachment

cc: Governor Fife Symington
Rita Pearson, Deputy Chief of Staff
Office of the Governor

Interview List

Exhibit 1

EXHIBIT 1

1 OF 4 PAGES

DEQ

Name	Title/Department	Date
Kickoff Meeting	NA	Nov. 8, 91
Nancy Wrona	A.D. Air Quality	Nov. 12, 91
Bill Wiley	A.D. Rules	Nov. 13, 91
Joe Smith	A.D. Administration	Nov. 14, 91
Stephanie Wilson	A.D. Waste Program	Nov. 14, 91
Marc Lame	Ombudsman	Nov. 14, 91
Sean McLaughlin	Env. Eng. Spec.-Permits Unit	Nov. 15, 91
William Jasper	Unit Supv.-Compliance Unit	Nov. 18, 91
Mike Traubert	Env.Eng.Spec.-Compliance	Nov. 18, 91
Bill Watson	Manager-Vehicle Emissions	Nov. 19, 91
Gary Neuroth	Manager-Air Assessment	Nov. 19, 91
Prabhat Bhargava	Permits Unit Mgr.	Nov. 19, 91
Jim Guyton	Monitoring-Air Assessment	Nov. 19, 91
Cathy Stevens	Air-Assessment	Nov. 20, 91
Joe Soporowski	Unit Manager-Air Assessment	Nov. 20, 91
Marylou Smithana	Vehicle Emission	Nov. 20, 91
Mark Klinger	Vehicle Emission	Nov. 20, 91
Dan Grubbe	Vehicle Emission	Nov. 20, 91
Dan Bauer	Vehicle Emission	Nov. 20, 91
Dick Cisco	Vehicle Emission	Nov. 20, 91
Ed Fox	Director	Nov. 21, 91
John Walls	Vehicle Emissions	Nov. 21, 91
Frank Cox	Vehicle Emissions	Nov. 21, 91
Larry Rich	Chief-Tucson office	Nov. 21, 91
Robert Wetterstrom	ERS-Vehicle Emission-Tucson	Nov. 22, 91
Ira Domsy	Section chief-Planning	Nov. 22, 91
Marylou Smithana	Vehicle Emissions	Nov. 25, 91
Mark Klinger	Vehicle Emissions	Nov. 25, 91
Ron Taut	Vehicle Emissions	Nov. 25, 91
Manager	Gordon Darby	Nov. 25, 91
Jim Guyton	Mgr. Monitoring unit	Nov. 25, 91
Rose Jessen	Data Analyst	Nov. 26, 91
Sandy Connery	Data Analyst	Nov. 26, 91
Ed Fox	Director-DEQ	Nov. 27, 91
Stephanie Wilson	A.D.-Waste Division	Dec. 3, 91
Ty Canez	Section Mgr.-Hazardous Waste	Dec. 3, 91
Dan Marsin	Section Mgr.-Remedial Proj.	Dec. 3, 91
Lund/Watters	Section Mgr.-UST	Dec. 3, 91
Dale Anderson	Supervisor-Waste Insp.Unit	Dec. 4, 91
Wendy Kristin	Supv-Corrective Action Unit	Dec. 4, 91
Ohnmeiss/Thaut	Carp Team Leader/EHS II	Dec. 4, 91
Mike Ballot	Pre-Remedial Unit Supv.	Dec. 4, 91
Al Roesler	Ex-Supv.-Permit Unit-Haz.Waste	Dec. 5, 91
Al Brown	Ex-Supv.-Comp.Unit-Haz.Waste	Dec. 5, 91
Doug Wheeler	EDP-MIS	Dec. 5, 91
Linda Burgess	P&PS-Tech.Prog.Unit	Dec. 5, 91

Interview List

Exhibit 1

EXHIBIT 1

2 OF 4 PAGES

DEQ

Name	Title/Department	Date
Kathy Feliberty	P&PS-Tech.Prog.Unit	Dec. 5, 91
Sandra Eberhardt	Eng.Prog.Supv.-Poll.Prev.Unit	Dec. 5, 91
Andy Soesilo	Section Mgr.-Waste Assess.	Dec. 5, 91
Bill Shafer	Fin. Cnsltnt-Fac.Rep.Unit	Dec. 5, 91
Barbara Herron	R&SA	Dec. 5, 91
Mike Greenslave	Supv.-Engrng.Unit	Dec. 5, 91
Barry Recktorovich	EHS-II-Engrng.Unit	Dec. 5, 91
Al Brown	Unit Supv.-Remedial Proj.	Dec. 6, 91
Bill Soleberg	EPS-Waste Insp.Unit	Dec. 6, 91
Allen Johnson	Supv.-Hydrology Unit	Dec. 6, 91
Joe Drosendahl	RP-Team Leader	Dec. 6, 91
Laura Manley	RP-Team-Hydro II	Dec. 6, 91
Mike Leach	State Lead Team-TL	Dec. 9, 91
Ed Fox	Director -- DEQ	Dec. 6, 91
Ed Csira	Compl.Unit Supv.-Haz.Waste	Dec. 9, 91
Tammy Martel	Admin.Secy.-Emerg.Resp.Unit	Dec. 9, 91
Carrol Ferrel	Clk.Typ.III-Emerg.Resp&Insp.	Dec. 9, 91
Dan Zeller	Engrn-Solid Waste	Dec. 10, 91
Barry Abott	Unit Supv.-Solid Waste	Dec. 11, 91
Bill Shafer	A.D.-Water Quality	Dec. 16, 91
Syed Amanatullah	EES-Landfill-WQ	Dec. 17, 91
Roger Kennett	Mining-Unit Mgr.	Dec. 17, 91
Skip Hellurud	Section Mgr-Water Permit	Dec. 18, 91
Bill Engstrom	Unit Mgr-APP Wastewater/Drywis	Dec. 18, 91
Wayne Palsma	EPS-NPDES	Dec. 18, 91
Stephanie Ostrom	Section Mgr-Prog.Coord.	Dec. 18, 91
Carol Aby	Unit Supv.-Planning & Grants	Dec. 18, 91
John Bulanowski	Unit Supv.-Operator Cert.	Dec. 18, 91
Larry Pierson	Admin.Asst.II-Plan'g & Grants	Dec. 18, 91
Hains, Charles	Field Services-MGR.	Dec. 20, 91
Dan Williams	Central Regional-Env.Engr.	Dec. 20, 91
Perry James	MIS-WQ	Dec. 18, 91
Ed Pond	EHS II-Mining APP	Dec. 18, 91
Chiou Chen	EPS	Dec. 18, 91
Lionel Klikoff	NPDES-Unit Mgr.	Dec. 18, 91
Corraine Lujan	AA II-NPDES Unit	Dec. 18, 91
Ed Fox	Director-DEQ	Dec. 19, 91
Forrest Woodwick	Lab Coord. Unit Supv.	Dec. 19, 91
Dorothy Hains	Unit MGR.-Tech.Review	Dec. 20, 91
Brian Munson	MGR.-Water Assessment	Jan. 2, 92
Don Shroyer	Unit Supv.-Non-point source	Jan. 2, 92
Ed Swanson	Unit Supv.-Point Source	Jan. 3, 92
Wang Yu	Unit Supv.-Pesticides	Jan. 3, 92
Edna Heard	Lab Coord	Jan. 6, 92
Reza Azizi	Unit Mgr.-Wastewater Comp.	Jan. 6, 92
Bob Munari	Section Mgr-Comp. Section	Jan. 6, 92

Interview List

Exhibit 1

DEQ

EXHIBIT 1

3 OF 4 PAGES

Name	Title/Department	Date
Jon Dahl	Unit Mgr-Drinking Water Comp.	Jan. 6, 92
Ed Csira	Lab. Coord-Water Assess.	Jan. 7, 92
Louis Parsons	TL-Water Poll.Comp.	Jan. 8, 92
Elizabeth Ridgely	TL-Drinking Water Enf.	Jan. 8, 92
Dan Williams	Data Mgr-Drinking Water Unit	Jan. 8, 92
Walid Alsmadi	TL-Drinking Water Comp.	Jan. 8, 92
Linda Bragg	R&SA-Drinking Water Data	Jan. 8, 92
Jim Maston	SRO Mgr-Field Serv.(Tucson)	Jan. 8, 92
Steve Devereaux	SRO-EES (Tucson)	Jan. 8, 92
Andrew Rendes	SRO-EES (Tucson)	Jan. 8, 92
Michele Kennard	Unit Supv.-GW Hydrology	Jan. 13, 92
Judy Heywood	Unit Supv.-GW Hydr.Site Ass.	Jan. 14, 92
Scott Goodwin	Site Ass.-Hydr. Unit	Jan. 14, 92
Chuck Graf	Section Mgr.-GW Hydr.	Jan. 14, 92
Bud Paulson	A.D.-Envir.Serv.Div.-Agricul.	Jan. 17, 92
Wayne Hood	Supv.-GW Hydr.	Jan. 17, 92
Harley Hielt	NRO-Supv. Field Services	Jan. 14, 92
Joe Smith	A.D.-Administration	Jan. 16, 92
Ed Fox	Director	Jan. 21, 92
Rich Beissel	Comptroller	Jan. 22, 92
Fred Goebel	FIS SVS. MGR II	Jan. 22, 92
Janet Gafford	FIS SVS SP IV	Jan. 22, 92
Ajita Athalye	FIS SVS SP II	Jan. 22, 92
Gary Borrman	FIS SVC SP III	Jan. 22, 92
Delores Rankin	Acct. Tech III	Jan. 22, 92
Mark Lammle	Acct. Tech II	Jan. 23, 92
Annette Davis	Acct. Tech II	Jan. 23, 92
Robert Jones	Acct. Tech II	Jan. 23, 92
Barbara Abalos	Temporary Clerk	Jan. 23, 92
Aurora Lopez	Buyer III	Jan. 23, 92
Sal Derner	Bud. Cont. Dev. SP II	Jan. 23, 92
Dan Smolnik	Contr. Mgt. SP II	Jan. 23, 92
Phyllis Johnson	Acctg.Unit-FIS SVS SP I	Jan. 24, 92
Jane Thompson	A/R Unit-FIS SVC SP III	Jan. 24, 92
Carol Frantz	Payroll-Unit Supv.	Jan. 24, 92
Theresa Thomas	Payroll-Acct.Tech III	Jan. 24, 92
Brad Sains	Cost Recovery-FIS SVC SP III	Jan. 24, 92
Sue Rice	Human Resources-AA III	Jan. 24, 92
Paul Donovan	Human Resources-Tr.Off. II	Jan. 24, 92
Jose Farias	Business Sys-Prog.Anal. III	Jan. 23, 92
Terry Fields	Scientific Sys.-Proj.Leader	Jan. 23, 92
Yvonne Goolsby	IRMS-Proj.Mgr.	Jan. 23, 92
Gloria Mathews	Info.Center-Prog.Anal. III	Jan. 24, 92
David Harper	Comp.Oper. III	Jan. 24, 92
George Giarrusso	Data Base-DB SP II	Jan. 24, 92
Gary Crockett	Bus.Sys-Prog.Anal. III	Jan. 24, 92

Interview List

Exhibit 1

DEQ

EXHIBIT 1

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Name	Title/Department	Date
Tam Warner	Info.Center-Intern	Jan. 24, 92
Tara Fuchs	Mgmt.Budg.-Exec.Consult II	Jan. 27, 92
Beth Reely	Budg.-Bud Contl Dev Off II	Jan. 27, 92
Warren Schrier	Budg.-Bud Contl Dev Off II	Jan. 27, 92
Broderick-Hurley	Int.Audit-Prog.Compl.Aud. III	Jan. 27, 92
Ronald Gray	Int.Audit-Rev Field Aud. III	Jan. 27, 92
Martha Seaman	Mgr.-Rules Development	Jan. 30, 92
Ronald Dalrymple	Exec.Dir.-B.T.R.	Jan. 31, 92
James Dixon	Investigation Mgr.-B.T.R.	Jan. 31, 92
Mike Miller	Chairman of the B.T.R.	Jan. 31, 92
Roger Brewer	Env.Consultants-B.T.R.	Jan. 31, 92
Roger Palmenberg	Env.Consultnt.-Palmenberg Inc.	Jan. 31, 92
Steven Pawloski	ASO II	Jan. 31, 92
Ed Fox	Director	Feb. 3, 92

DEQ

SUMMARY OF TITLES & SAVINGS

Title	Federal					State					Others					Grand Total		
	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Dollars	FTE	FTE Vac.
Air Quality Division																		
Vehicle Emissions Waiver Lanes			\$0			\$24,470	\$55,717	\$80,187	3	1	\$31,780	\$113,033	\$144,813	5	1	\$225,000	8	2
Denied Portion of Waiver Lane Process			\$0					\$0					\$0			\$0	0	0
Revision of Public Notices/Public Hearing Process			\$0					\$0					\$0			\$0	0	0
Combining Permit & Compliance Units		\$104,300	\$104,300	5		\$68,657	\$124,166	\$192,823	2		\$43,430		\$43,430	1	1	\$340,553	8	1
Pre-Application Meeting Requirement			\$0					\$0					\$0			\$0	0	0
Cursory Evaluation Improvement			\$0					\$0					\$0			\$0	0	0
Draft Permit Review Process			\$0			\$0		\$0					\$0			\$0	0	0
Monitoring Unit, Instrumentation Team			\$0					\$0				\$44,136	\$44,136	1		\$44,136	1	0
Reassignment of Analysis Team			\$0					\$0					\$0			\$0	0	0
Assignment of Special Studies Function			\$0					\$0					\$0			\$0	0	0
Assignment of Modeling Workload			\$0				\$18,101	\$18,101	1		\$31,123	\$52,998	\$84,121	2	1	\$102,222	3	1
Sub-Total Air Quality Division	\$0	\$104,300	\$104,300	5	0	\$93,127	\$197,984	\$291,111	6	1	\$106,333	\$210,167	\$316,500	9	3	\$711,911	20	4
Waste Division																		
Combine Federal Facilities & Pre-Remedial Units	\$43,430		\$43,430	1	1	\$38,926		\$38,926	1	1	\$86,860		\$86,860	2	2	\$169,216	4	4
Emergency Response Unit			\$0			\$41,497		\$41,497	1	1			\$0			\$41,497	1	1
Transfer of Inspections Functions	\$63,054	\$8,862	\$71,916	2	2		\$39,559	\$39,559	1				\$0			\$111,475	3	2
Compliance Unit	\$135,258		\$135,258	4	4	\$26,548		\$26,548	1	1			\$0			\$161,806	5	5
Solid Waste Unit			\$0			\$57,679	\$79,961	\$137,640	4	2	\$31,115		\$31,115	1	1	\$168,755	5	3
Special Waste Unit			\$0			\$229,562		\$229,562	7	7			\$0			\$229,562	7	7
Permit Unit, Hazardous Waste Section			\$0					\$0					\$0			\$0	0	0
Transfer of Facilities Reporting Unit Functions		\$26,422	\$26,422	1				\$0		\$180,002	\$46,169	\$226,171	8	7	\$252,593	9	7	
Combining Units in the Underground Storage Tank Section	\$123,000	\$244,129	\$367,129	9	3			\$0		\$1,021,326	\$190,800	\$1,212,126	31	26	\$1,579,255	40	29	
Contracting/Legal Services			\$0					\$0		\$53,100	\$77,019	\$130,119	5	3	\$130,119	5	3	
Sub-Total Waste Division	\$364,742	\$279,413	\$644,155	17	10	\$394,212	\$119,520	\$513,732	15	12	\$1,372,403	\$313,988	\$1,686,391	47	39	\$2,844,278	79	61

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DEQ

SUMMARY OF TITLES & SAVINGS

EXHIBIT 2
2 OF 3 PAGES

Title	Federal					State					Others					Grand Total		
	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Dollars	FTE	FTE Vac.
Water Quality Division																		
Program Coordination/Certification Section Placement	\$56,484		\$56,484	1	1	\$128,928	\$104,229	\$233,157	7	4			\$0		\$289,641	8	5	
Revolving Fund Unit Transfer	\$108,760		\$108,760	3	3			\$0			\$114,035	\$72,875	\$186,910	6	4	\$295,670	9	7
Assignment of Water Quality Field Offices	\$71,003	\$16,664	\$87,667	3	2	\$124,893	\$86,860	\$211,753	6	3	\$18,300		\$18,300	1	1	\$317,720	10	6
Combine Drinking Water Enforcement and Data	\$95,410	\$52,150	\$147,560	4	3	\$225,495		\$225,495	6	6			\$0		\$373,055	10	9	
Bond Submission in Lieu of Financial Data			\$0					\$0					\$0		\$0	0	0	
Establishing Deadline for Deficiency Responses			\$0					\$0					\$0		\$0	0	0	
Combining Units in Plans Review & Permit Section			\$0			\$130,419	\$137,627	\$268,046	6	3	\$134,799		\$134,799	3	3	\$402,845	9	6
Pesticides Unit			\$0			\$26,548	\$51,615	\$78,163	2	1			\$0		\$78,163	2	1	
Groundwater Protection List			\$0				\$60,000	\$60,000					\$0		\$60,000	0	0	
ADA-DEQ Coordination of Inspections	\$31,250		\$31,250	1	1			\$0					\$0		\$31,250	1	1	
Groundwater Hydrology Section	\$113,709	\$40,899	\$154,608	4	3		\$105,180	\$105,180	3		\$65,689		\$65,689	2	2	\$325,477	9	5
																0	0	
																0	0	
Sub-Total Water Quality Division	\$476,616	\$109,713	\$586,329	16	13	\$636,283	\$545,511	\$1,181,794	30	17	\$332,823	\$72,875	\$405,698	12	10	\$2,173,821	58	40
Administration Division																		
Simplify EDP Equipment Purchases			\$0					\$0					\$0		\$0	0	0	
EDP Maintenance Contract Renewals			\$0				\$30,000	\$30,000					\$0		\$30,000	0	0	
Payroll Unit			\$0				\$35,670	\$35,670	2				\$0		\$35,670	2	0	
Accounts Receivable			\$0			\$20,773		\$20,773	1	1		\$55,809	\$55,809	3		\$76,582	4	1
Accounting Unit Functions			\$0			\$71,246	\$39,559	\$110,805	5	4			\$0		\$110,805	5	4	
Cost Recovery Process			\$0			\$17,811	\$35,623	\$53,434	3	1	\$89,055		\$89,055	5	5	\$142,489	8	6
Procurement			\$0				\$51,041	\$51,041	2			\$21,393	\$21,393	1		\$72,434	3	0
Accounts Payable			\$0			\$79,421		\$79,421	4	4		\$18,101	\$18,101	1		\$97,522	5	4
Reorganize Information Resources Management			\$0			\$52,267	\$55,646	\$107,913	3	2			\$0		\$107,913	3	2	
Utilization of Human Resource Personnel			\$0				\$14,363	\$14,363	2				\$0		\$14,363	2	0	
Budget Workload			\$0				\$40,880	\$40,880	2				\$0		\$40,880	2	0	
Sub-Total Administration Division	\$0	\$0	\$0	0	0	\$241,518	\$302,782	\$544,300	24	12	\$89,055	\$95,303	\$184,358	10	5	\$728,658	34	17

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EXHIBIT 2
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DEQ

SUMMARY OF TITLES & SAVINGS

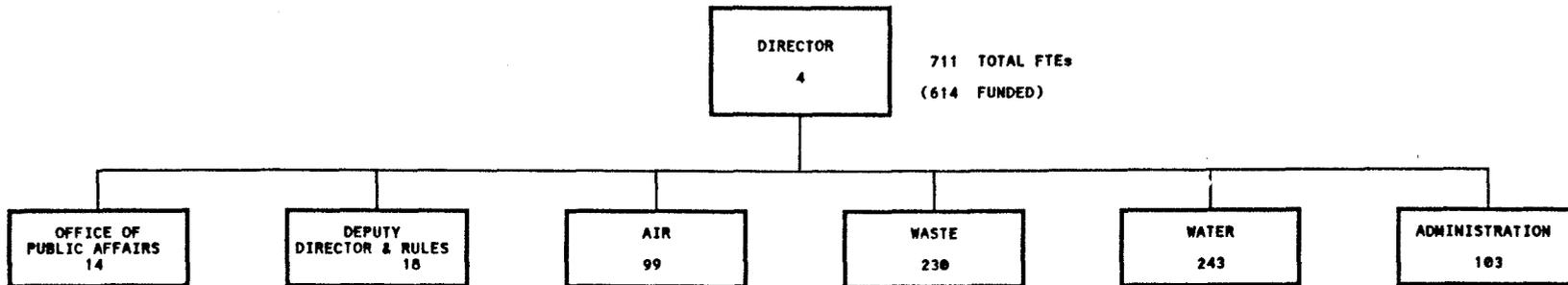
Title	Federal					State					Others					Grand Total		
	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Avoid	Reduction	Total	FTE	FTE Vac.	Dollars	FTE	FTE Vac.
Rules Development																		
Rules Drafting			\$0				\$17,800	\$17,800	1				\$0			\$17,800	1	0
Sub-Total Rules Development			\$0				\$17,800	\$17,800	1				\$0			\$17,800	1	0
General Recommendations																		
DEQ Laboratory Services			\$0					\$0					\$0			\$0	0	0
Policies, Procedures, Training, Management & Personnel			\$0					\$0					\$0			\$0	0	0
Providing DEQ with Staff Attorneys			\$0				\$147,700	\$147,700					\$0			\$147,700	0	0
Department Organization Structure, DEQ			\$0					\$0					\$0			\$0	0	0
Work Standards / Work Measurements			\$0					\$0				\$1,040,000	\$1,040,000	26		\$1,040,000	26	0
Requirement for Standardized Policy/Procedure			\$0					\$0					\$0			\$0	0	0
Need for Service-Oriented, Customer Concerned Attitude			\$0					\$0					\$0			\$0	0	0
Establishment of Central Planning Office			\$0					\$0					\$0			\$0	0	0
Placement of Audit Functions			\$0					\$0					\$0			\$0	0	0
Sub-Total General Recommendations	\$0	\$0	\$0	0	0	\$0	\$147,700	\$147,700	0	0	\$0	\$1,040,000	\$1,040,000	26	0	\$1,187,700	26	0
TOTALS	\$841,358	\$493,426	\$1,334,784	38	23	\$1,365,140	\$1,331,297	\$2,696,437	76	42	\$1,900,614	\$1,732,333	\$3,632,947	104	57	\$7,664,168	218	122
																Pub. Income		
																Total		
																\$34,300		
																\$7,698,468		

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CURRENT ORGANIZATION CHART
DEPARTMENT OF ENVIRONMENTAL QUALITY

EXHIBIT # 3
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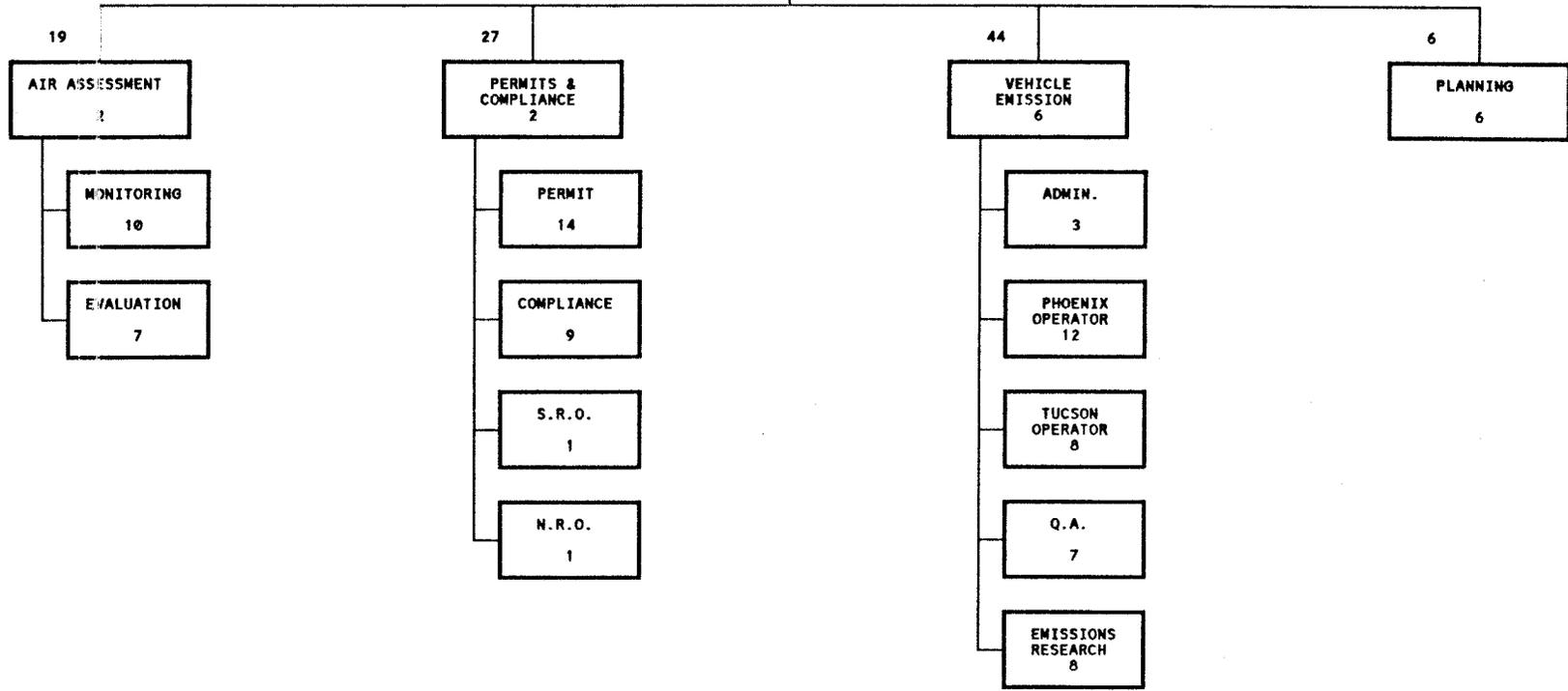


CURRENT ORGANIZATION CHART
AIR QUALITY

EXHIBIT # 3
PAGE 2 OF 5

99 TOTAL FTEs

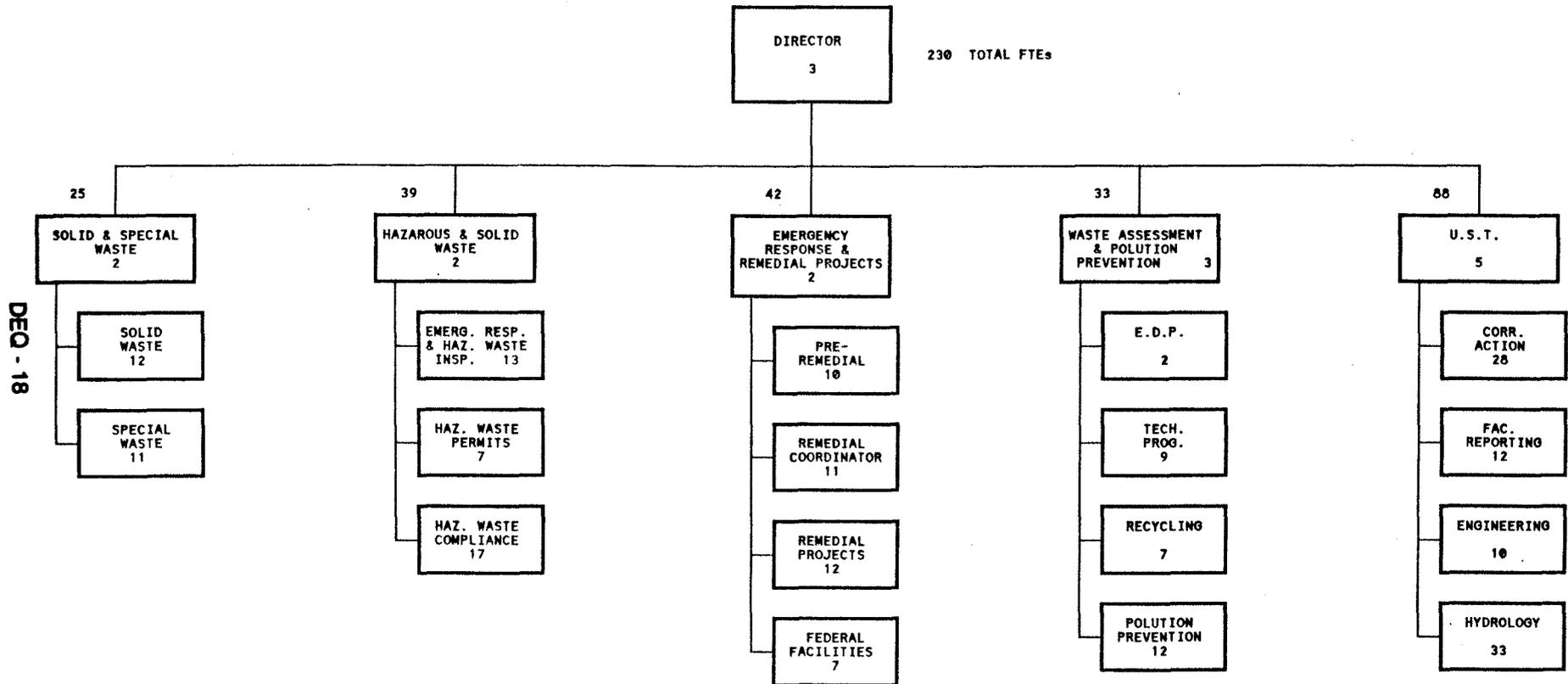
ASSISTANT
DIRECTOR
3



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CURRENT ORGANIZATION CHART
WASTE PROGRAMS

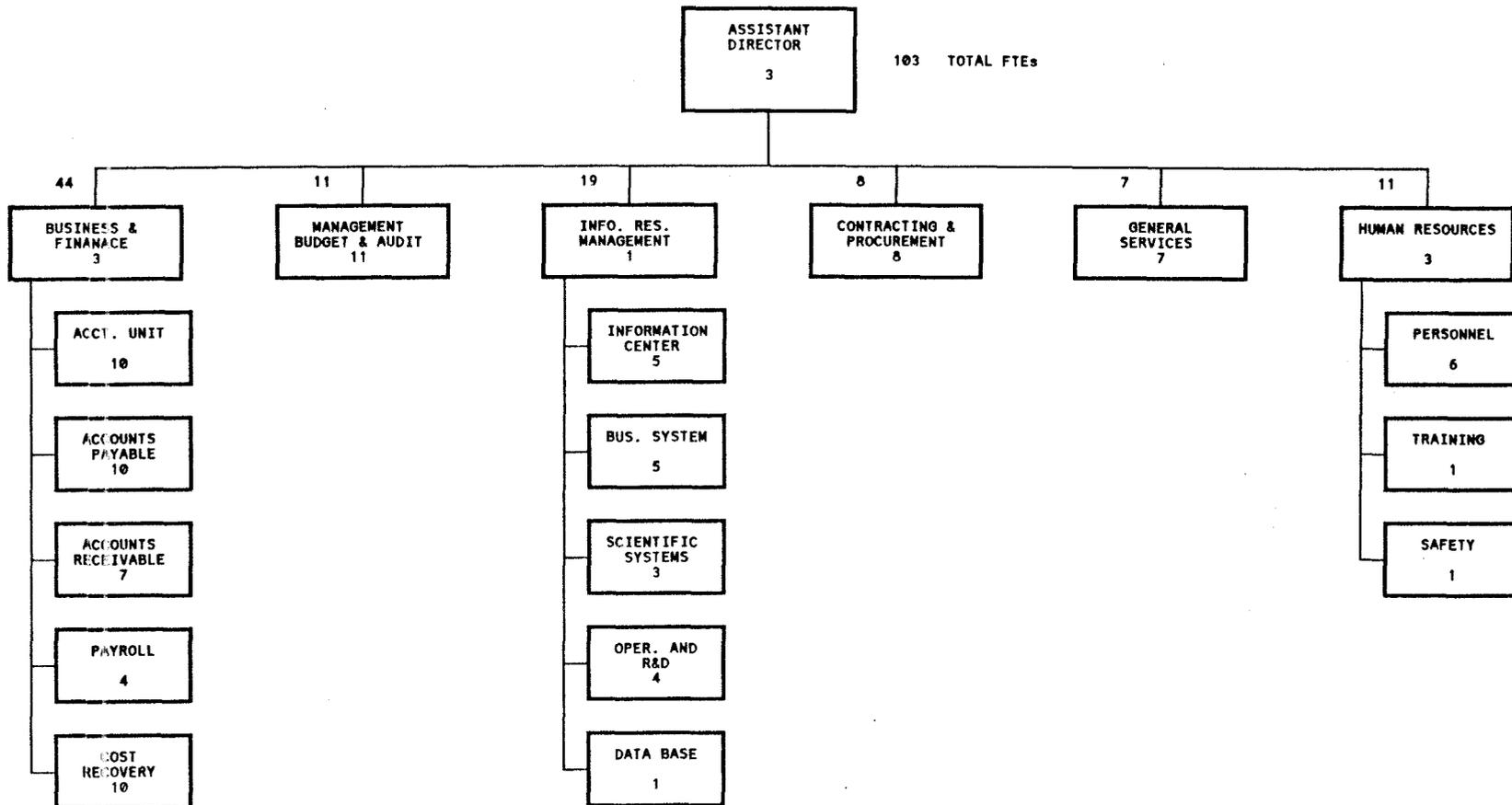
EXHIBIT # 3
PAGE 3 OF 5



**CURRENT ORGANIZATION CHART
ADMINISTRATION**

**EXHIBIT # 3
PAGE 4 OF 5**

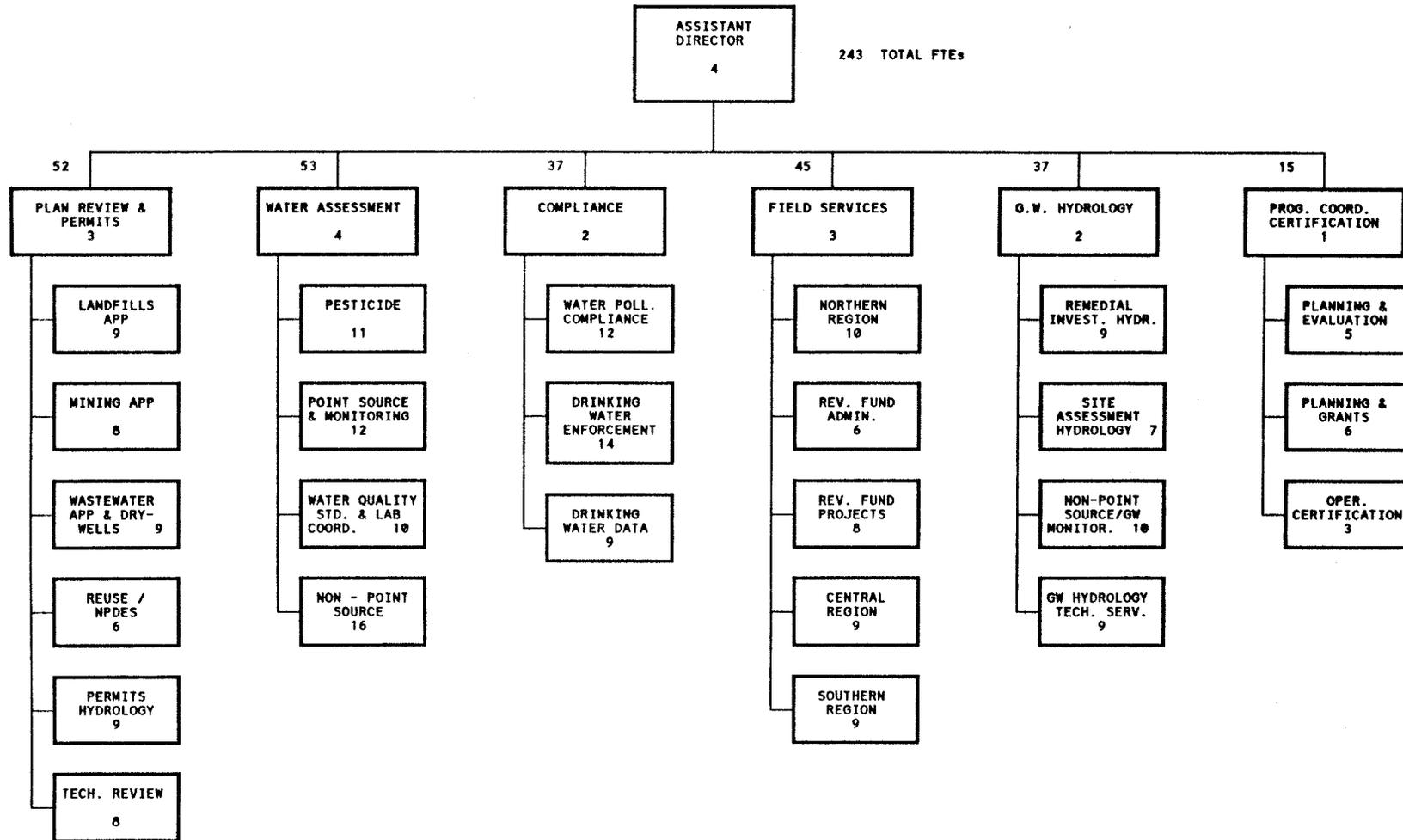
DEC - 19



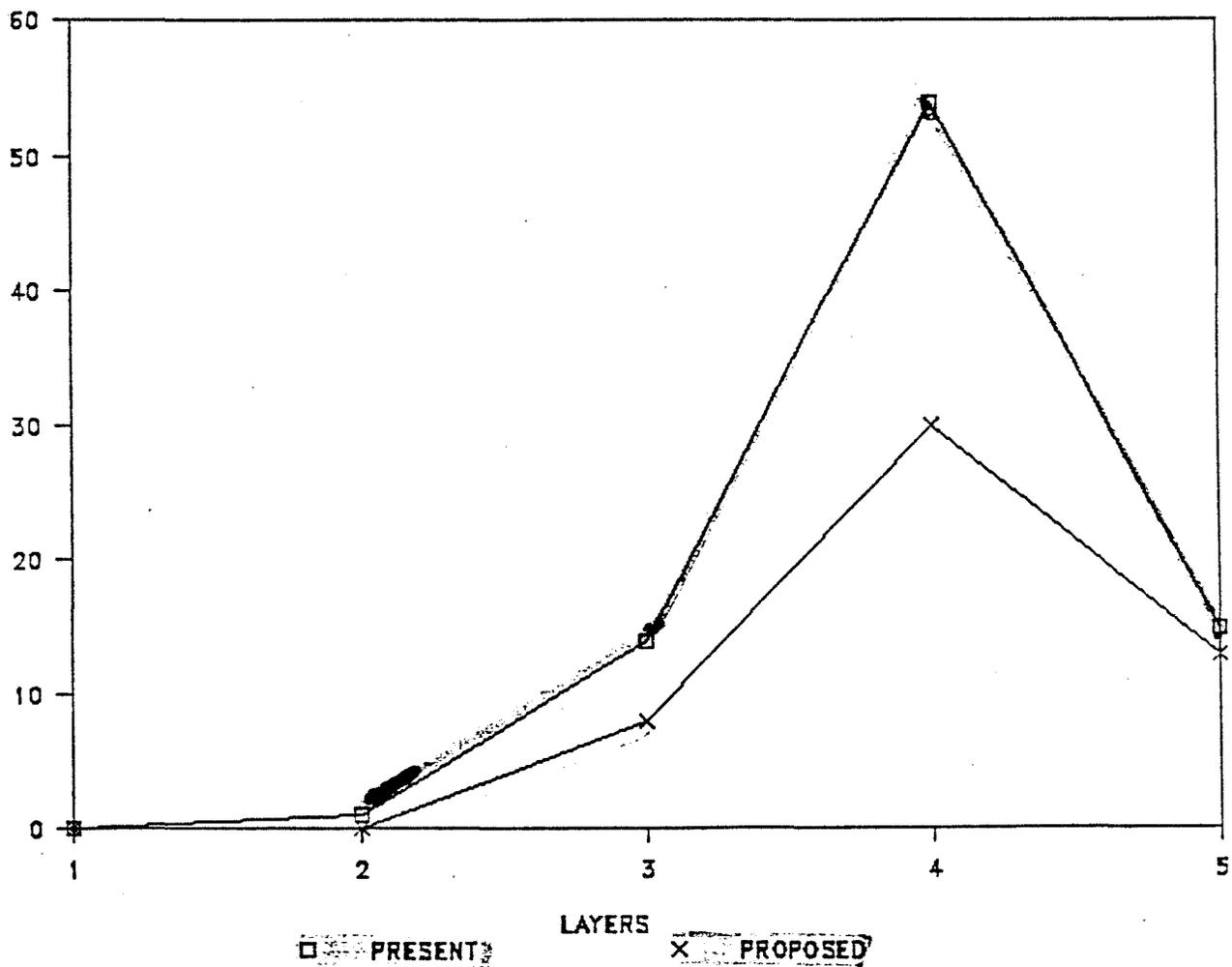
CURRENT ORGANIZATION CHART WATER QUALITY

EXHIBIT # 3
PAGE 5 OF 5

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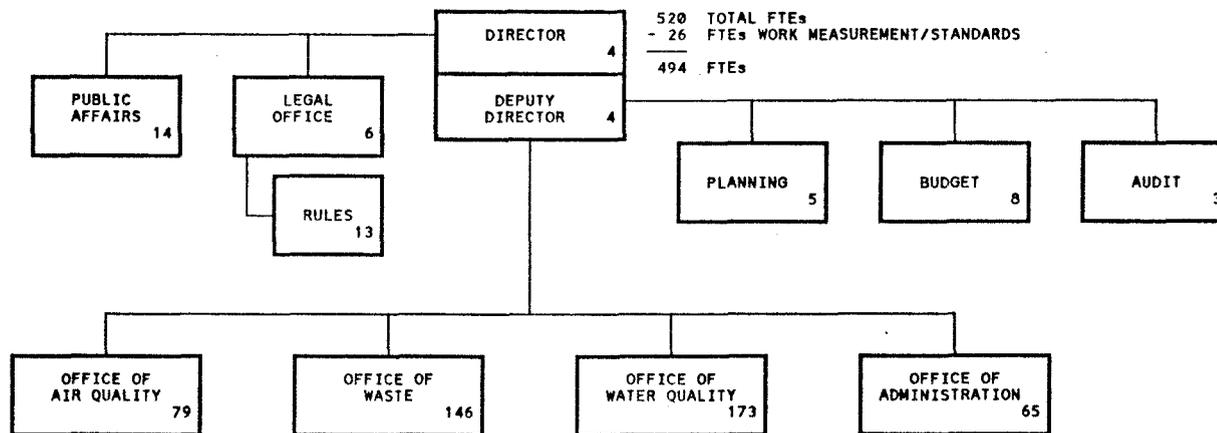


LAYERING (PRESENT AND PROPOSED)



DEPARTMENT OF ENVIRONMENTAL QUALITY
RECOMMENDED ORGANIZATIONAL STRUCTURE

EXHIBIT # 5
PAGE 1 OF 5

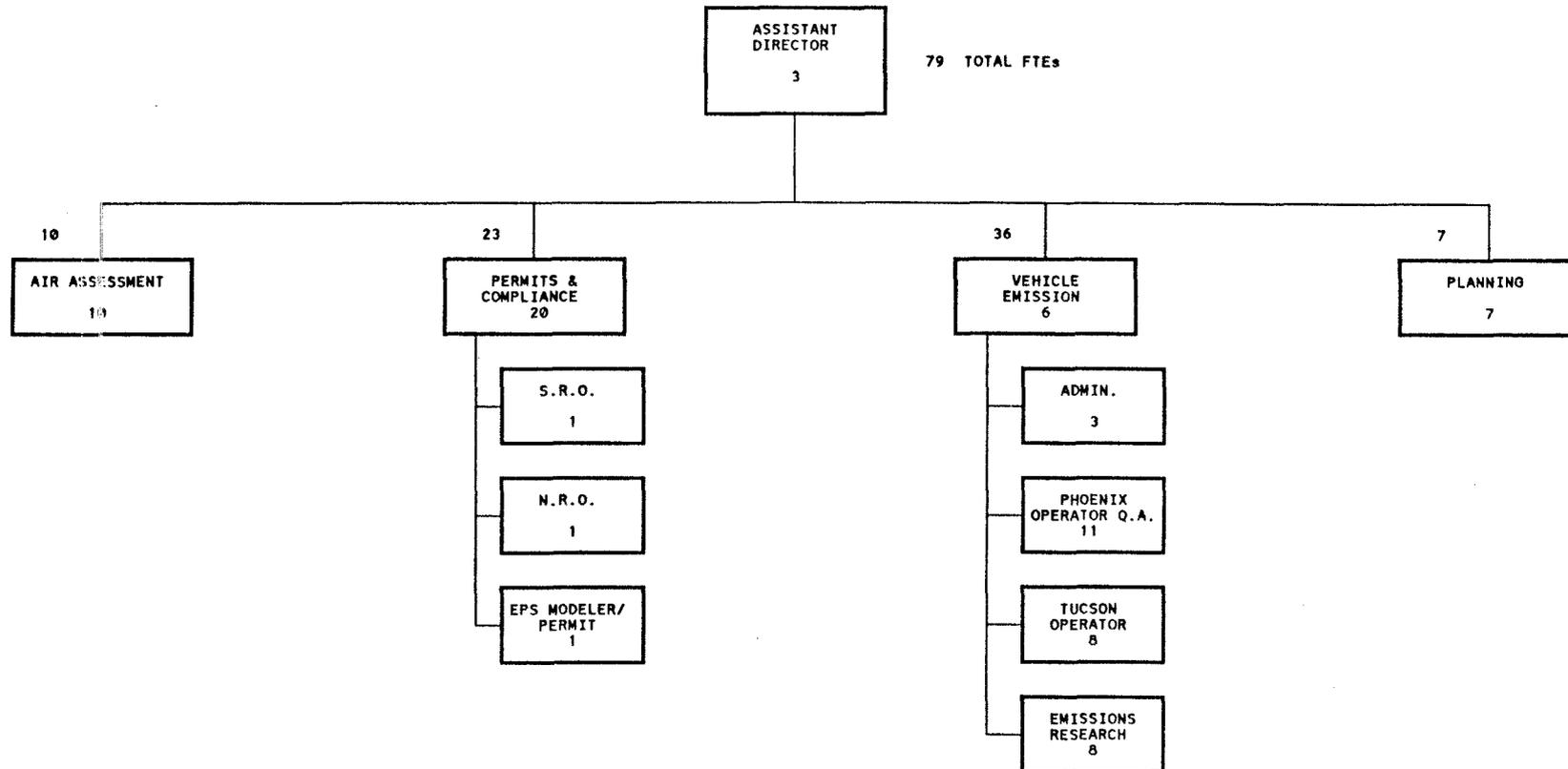


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RECOMMENDED ORGANIZATION CHART
AIR QUALITY

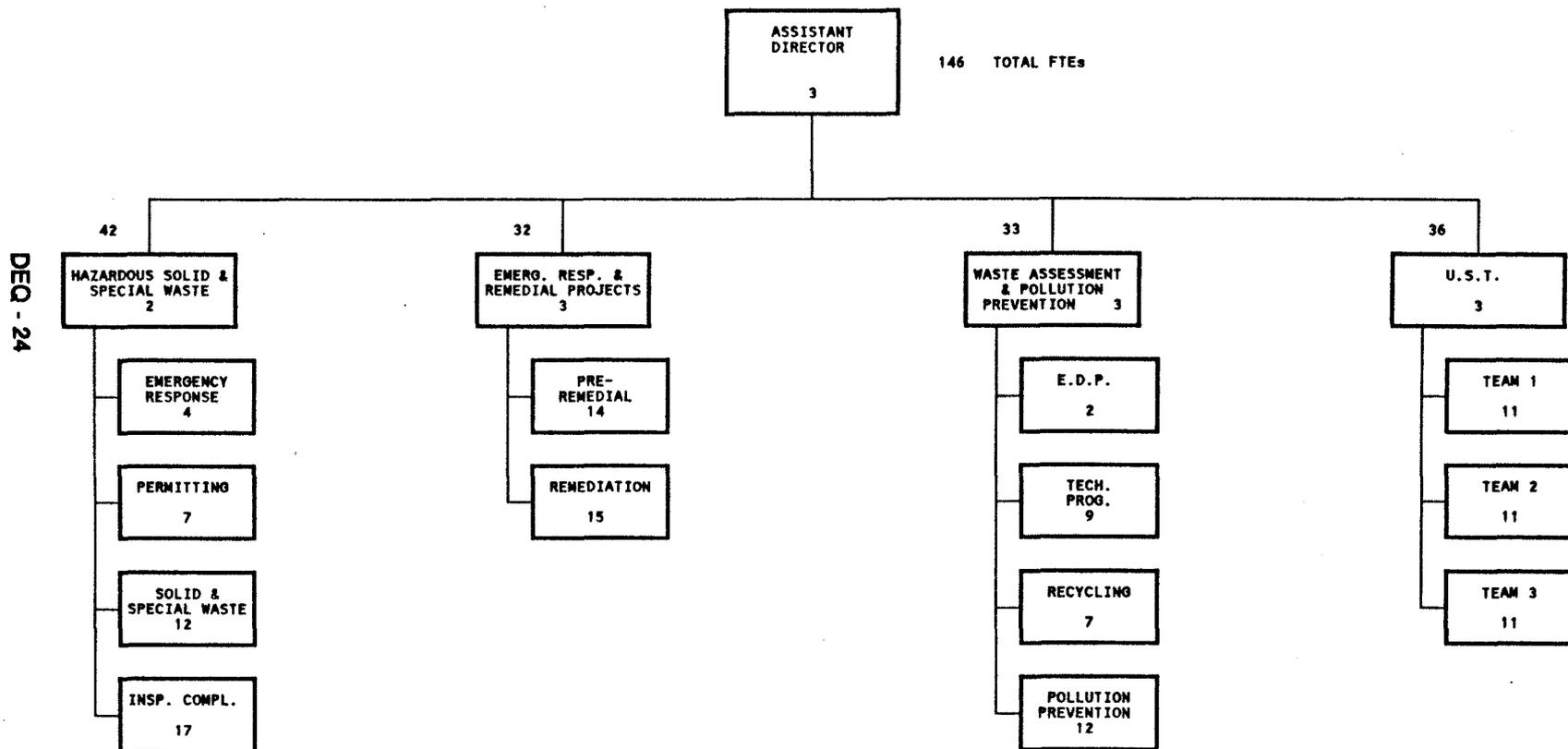
EXHIBIT # 5
PAGE 2 OF 5

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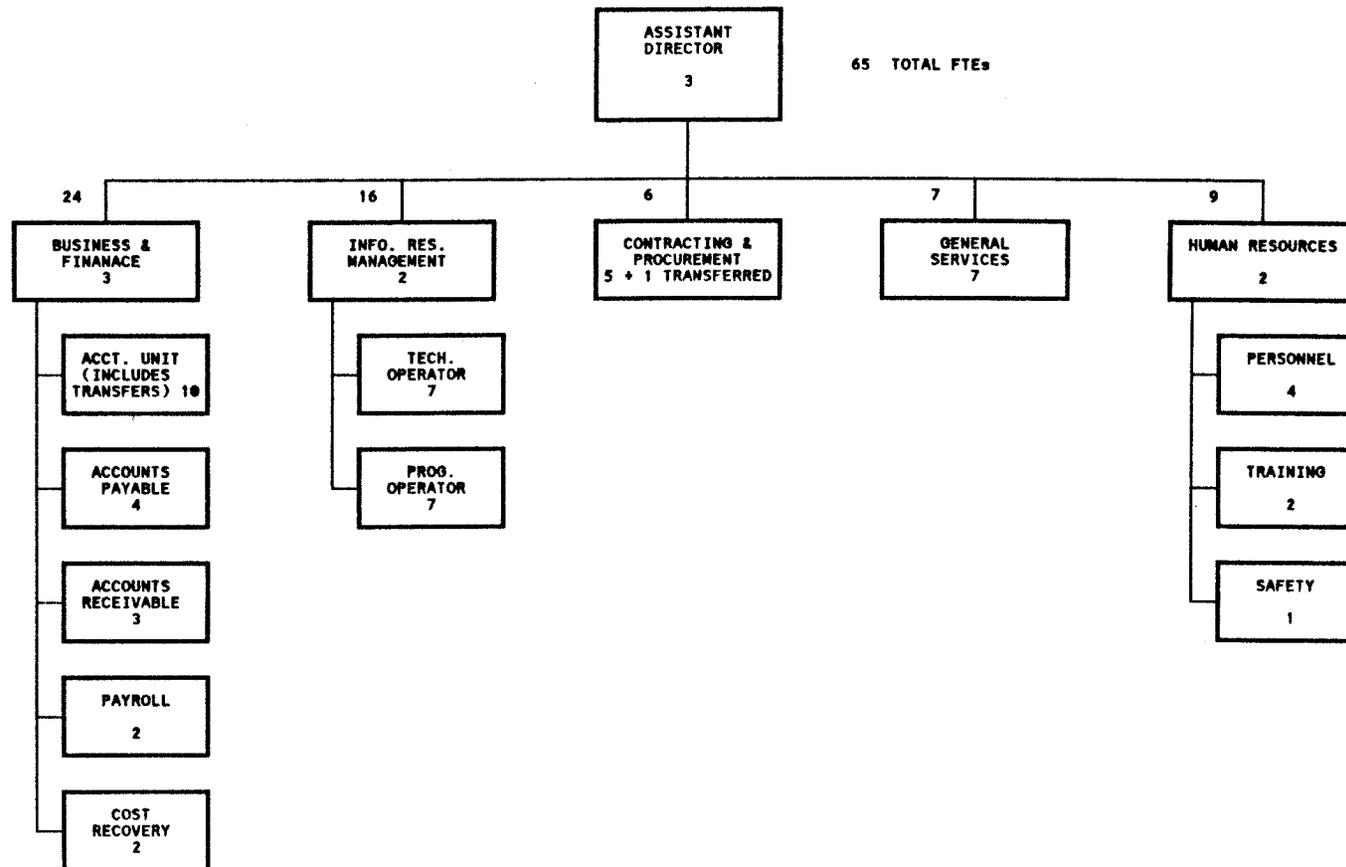
RECOMMENDED ORGANIZATION CHART
WASTE PROGRAMS

EXHIBIT # 5
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RECOMMENDED ORGANIZATION CHART
ADMINISTRATION

EXHIBIT # 5
PAGE 4 OF 5

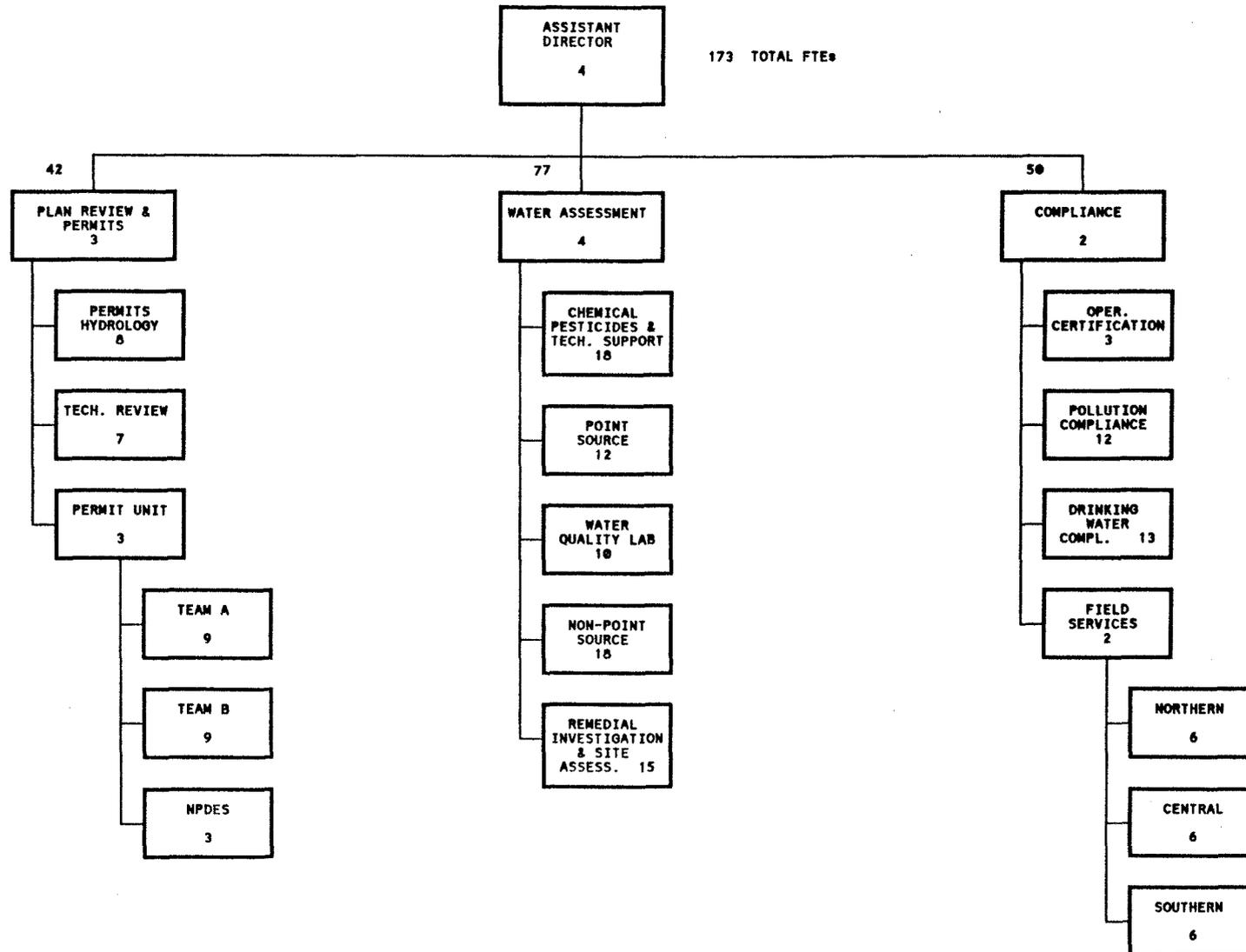


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RECOMMENDED ORGANIZATION CHART WATER QUALITY

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DEQ IMPLEMENTATION SCHEDULE (PRELIMINARY)

EXHIBIT 6
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	MONTHS																			
TITLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AIR QUALITY DIVISION																				
PRE - IMPLEMENTATION PREPARATION	→																			
VEHICLE EMISSIONS WAIVER LANES	→																			
DENIED PORTION OF WAIVER LANES PROCESS	→																			
REVISIONS OF PUBLIC NOTICES/PUBLIC HEARING PROCESS	→																			
COMBINING PERMIT & COMPLIANCE UNITS	→																			
PRE-APPLICATION MEETING REQUIREMENT	→																			
CURSORY EVALUATION IMPROVEMENT	→																			
DRAFT PERMIT REVIEW PROCESS	→																			
MONITORING UNIT-INSTRUMENTATION TEAM	→																			
REASSIGNMENT OF ANALYSIS TEAM	→																			
ASSIGNMENT OF SPECIAL STUDIES FUNCTION	→																			
ASSIGNMENT OF MODELING WORKLOAD	→																			
WASTE DIVISION																				
PRE - IMPLEMENTATION PREPARATION	→																			
COMBINE FEDERAL FACILITIES & PRE-REMEDIAL UNITS	→																			
EMERGENCY RESPONSE UNIT	→																			
TRANSFER OF INSPECTIONS FUNCTIONS	→																			
COMPLIANCE UNIT	→																			
SOLID WASTE UNIT	→																			
SPECIAL WASTE UNIT	→																			
PERMIT UNIT HAZARDOUS WASTE SECTION	→																			
TRANSFER OF FACILITIES REPORTING UNIT FUNCTIONS	→																			
COMBINING UNITS IN THE UNDERGROUND STORAGE TANKS SECTION	→																			
CONTRACTING/LEGAL SERVICES-WATER QUALITY	→																			

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DEQ IMPLEMENTATION SCHEDULE (PRELIMINARY)

EXHIBIT 6
PAGE 3 OF 3

	MONTHS																			
TITLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RULES DEVELOPMENT																				
RULES DRAFTING																				
GENERAL RECOMMENDATIONS																				
PRE - IMPLEMENTATION PREPARATION																				
DEQ LABORATORY SERVICES																				
POLICIES, PROCEDURES, TRAINING, MANAGEMENT & PERSONNEL																				
PROVIDING DEQ WITH STAFF ATTORNEYS																				
DEPARTMENT ORGANIZATION STRUCTURE, DEQ																				
WORK STANDARDS / WORK MEASUREMENTS																				
REQUIREMENT FOR STANDARDIZED POLICY/PROCEDURE																				
NEED FOR SERVICE-ORIENTED, CUSTOMER CONCERNED ATTITUDE																				
ESTABLISHMENT OF CENTRAL PLANNING OFFICE																				
PLACEMENT OF AUDIT FUNCTIONS																				

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DEPARTMENT of ENVIRONMENTAL QUALITY

OFFICE OF AIR QUALITY RECOMMENDATIONS

VEHICLE EMISSIONS WAIVER LANES

Current Situation

Vehicle emissions testing in Arizona is conducted by the Gordon-Darby Corporation of Kentucky under contract with ADEQ. Once a vehicle has exhausted the normal emissions tests options administered by Gordon Darby, and still fails to meet state standards, it is referred to the ADEQ waiver lanes. This process identifies approximately 47,000 waiver requests in Maricopa and Pima counties. The waiver request process is handled by ADEQ at one location in Tucson and two locations in Phoenix.

The process used by the personnel at the waiver lane locations is shown in the attached Exhibit 12, Waiver Lane Process Evaluation, Flow Chart. The vehicle owner may be issued a "Pass," "Waiver," "Tampering Pass or Fail," or denied certificate. Besides this activity, the Waiver lanes are available to conduct regular emissions tests on some government vehicles which do not have self-inspected fleet status.

The traffic volume through the two locations of the Phoenix Operations Unit (P.O.U.) is shown in Exhibit 13, Phoenix Vehicle Emissions Waiver, Statistical Summary. Approximately 32,500 requests for waivers and approximately 2,000 regular emission tests for government vehicles are processed annually. In addition, approximately 3,100 tampering cases in calendar 1991 were processed (see Exhibit 14, Emissions Waiver, Summary).

The Southern Operations Unit (S.O.U.) located in Tucson processed approximately 14,500 waivers, 1,200 tampering cases and 1,000 government vehicles in 1991 (see Exhibit 13, Phoenix Vehicle Emissions Waiver, Statistical Summary). The organization of these two units is shown in Exhibit 15.

The Quality Assurance (Q.A.) Unit in Phoenix performs start-up audits for garages, automotive repair shops, service stations and Gordon-Darby. They also conduct fleet audits once a year, shallow audits which are simplified annual fleet audits every 90 days, and handle complaints. These functions are performed within the Operations Unit in Tucson.

Impact

Based on our interviews and time studies, the P.O.U. waiver lane process is seven minutes in duration, tampering related cases is ten minutes and government vehicle emission tests is four minutes.

Using the above time frame for the three processes noted and evenly distributing the traffic into the waiver lanes (i.e. one vehicle after another), the staffing required to handle the P.O.U. volume would be:

- **Waiver Lanes:** At 7 minutes each, this equals 8.5 processed per hour, for 32,500 per year = 3,824 hours
- **Tampering:** At 10 minutes each, this equals 6 tests per hour, for 3,100 cases per year = 517 hours
- **Government Vehicles:** At 4 minutes each this equals 15 tests per hour, for 2,000 per year = 134 hours.

The total time required should be 4,475 hours or 3.74 FTEs based on an available 1,675 working hours per year. The current staffing is 12 FTEs in Phoenix.

The S.O.U. processes its workload with the equivalent of one FTE compared to the Phoenix operation where they will process about 4,062 waivers per FTE. This is due primarily to the cross-trained personnel and combined functions in Tucson. This allows the Q.A. team to utilize their slack time to perform inspections on the waiver lane, which results in a more efficient utilization of personnel.

Recommendations

We recommend that the Q.A. unit be combined with P.O.U. in the Phoenix area and the personnel be cross-trained just like the Tucson operation. An organization similar to that shown in Exhibit 16 will accomplish this recommendation.

Benefits

Combining the two units will allow the P.O.U. to achieve approximately the same ratio of cars processed per FTE as Tucson's operation. There are currently 12 FTE positions in the Phoenix Operation Unit of which two positions are vacant. There are six FTEs, plus one Clerk in the Q.A. Unit in Phoenix which makes a total of 19 FTE positions.

Combining the two Units will reduce the total number of positions from 19 to 11, thereby eliminating eight FTEs, of which two are currently vacant. This will result in a reduction of approximately \$168,750 and cost avoidance of approximately \$56,250 for a total savings of approximately \$225,000 per year.

Combining these units will extend the supervisory span of control - i.e., ten FTEs per supervisor versus six FTEs per supervisor in the Q.A. Unit.

The breakdown of savings are: State funds \$80,000, Other funds \$145,000.

Implementation

- Evaluate methodology Tucson operating unit uses for manning waiver lane
- Cross train personnel
- Time frame - approximately two month.

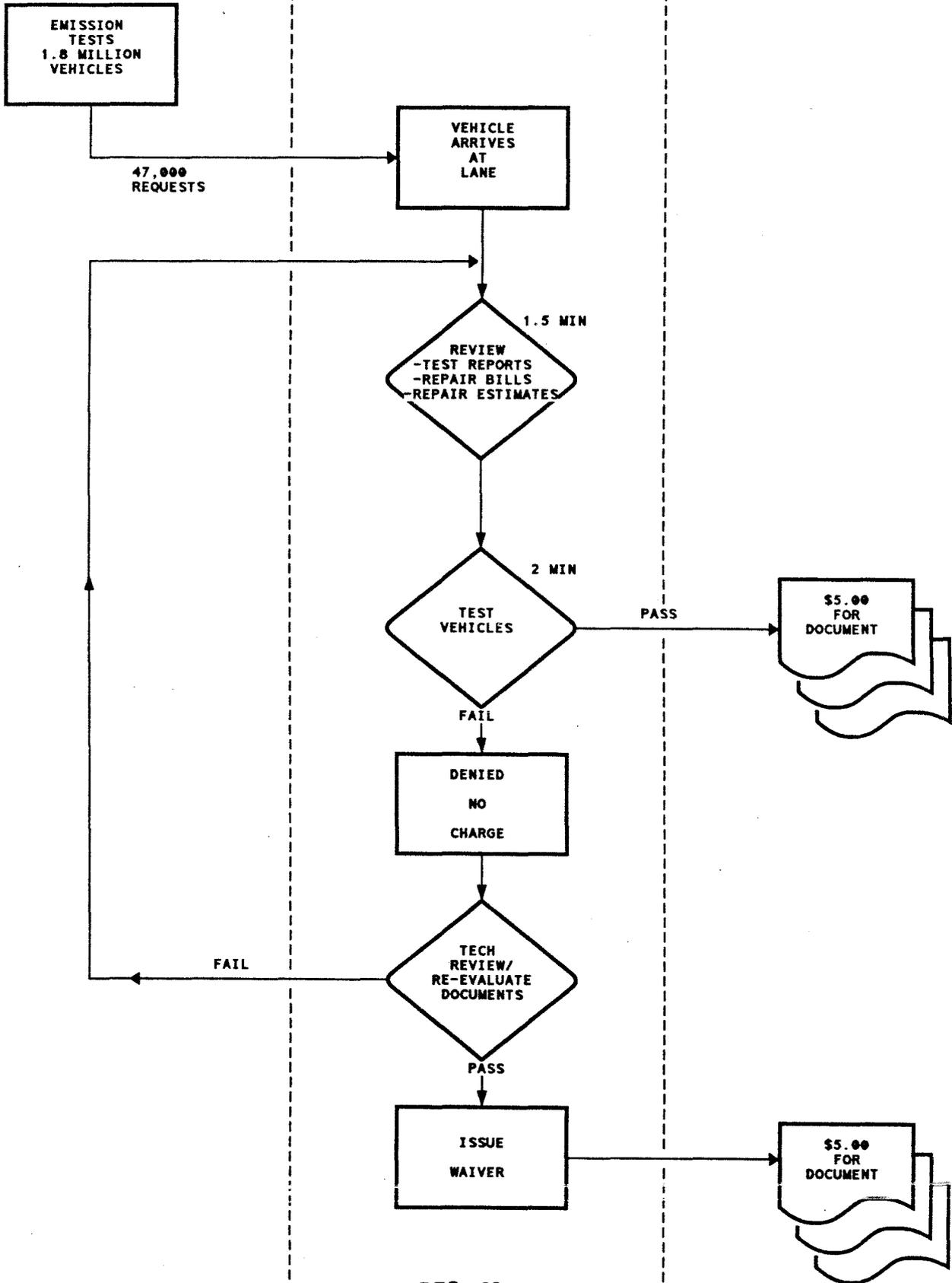
WAIVER LANE PROCESS EVALUATION

EXHIBIT 12

GORDON DARBY

WAIVER LANES

CASHIER



DEQ - 38

V7007

W01 WAIVER SUMMARY 1991 CALANDER YEAR

	REQUESTS	PASS	%PASS	DENIED	%DENIED	WAVIER	%WAVIER	REQUEST	TAMPERING PASS	FAIL
JAN	1759	409	23.12%	572	42.06%	788	57.94%	88	48	40
FEB	1588	310	19.52%	511	39.98%	767	60.02%	58	30	28
MAR	1785	348	19.50%	658	45.79%	779	54.21%	100	38	62
APR	1978	405	20.48%	790	50.22%	783	49.78%	98	54	44
MAY	2110	431	20.43%	835	49.73%	844	50.27%	92	38	54
JUN	1848	380	20.56%	739	50.34%	729	49.66%	125	58	67
JUL	2344	518	22.10%	964	52.79%	862	47.21%	241	121	120
AUG	2298	497	21.63%	895	49.69%	906	50.31%	328	186	142
SEP	2137	489	22.98%	874	53.03%	774	46.97%	230	123	117
OCT	2131	557	26.14%	759	48.22%	815	51.78%	280	145	135
NOV			ERR		ERR	0	ERR			
DEC			ERR		ERR	0	ERR			
TOTAL	19988	4344	21.73%	7597	48.56%	8047	51.44%	1640	841	809

DEC-39

W02 WAIVER SUMMARY 1991 CALANDER YEAR

GLN-7080 W. AUGUSTA

	REQUESTS	PASS	%PASS	DENIED	%DENIED	WAVIER	%WAVIER	REQUEST	TAMPERING PASS	FAIL
JAN	559	123	22.00%	239	54.82%	197	45.18%	29	19	10
FEB	632	116	18.35%	299	57.95%	217	42.05%	39	16	23
MAR	662	108	16.31%	318	57.40%	236	42.60%	41	19	22
APR	732	132	18.03%	346	57.67%	254	42.33%	65	28	37
MAY	734	133	18.12%	330	54.91%	271	45.09%	54	20	34
JUN	754	144	19.10%	369	60.49%	241	39.51%	64	32	32
JUL	973	240	24.67%	452	61.66%	281	38.34%	143	67	76
AUG	972	231	23.77%	468	63.16%	273	36.84%	197	104	93
SEP	956	246	25.73%	375	52.82%	335	47.18%	156	62	74
OCT	1001	224	22.38%	446	57.40%	331	42.60%	165	65	100
NOV			ERR		ERR	0	ERR			
DEC			ERR		ERR	0	ERR			
TOTAL	7975	1697	21.28%	3642	58.01%	2636	41.99%	953	452	501

W03 WAIVER SUMMARY 1991 CALANDER YEAR *TUC - 4040 E. 29th STREET*

	REQUESTS	PASS	%PASS	DENIED	%DENIED	WAVIER	%WAVIER	TAMPERING		
								REQUEST	PASS	FAIL
JAN	731	242	33.11%	203	41.51%	286	58.49%	21	20	1
FEB	956	199	20.82%	179	23.65%	578	76.35%	17	16	1
MAR	994	200	20.12%	227	28.59%	567	71.41%	25	23	2
APR	1201	243	20.23%	254	26.51%	704	73.49%	42	28	14
MAY	1329	306	23.02%	358	35.00%	665	65.00%	52	21	31
JUN	1266	273	21.56%	364	36.66%	629	63.34%	101	49	52
JUL	1468	365	24.86%	409	36.99%	695	63.01%	196	96	100
AUG	1572	476	28.47%	419	35.03%	777	64.97%	263	136	127
SEP	1342	357	26.60%	269	27.31%	716	72.69%	187	74	93
OCT	1304	349	26.76%	274	28.69%	681	71.31%	187	104	63
NOV			ERR		ERR	0	ERR			
DEC			ERR		ERR	0	ERR			
TOTAL	12863	3010	24.55%	2955	31.94%	6298	68.06%	1071	567	504

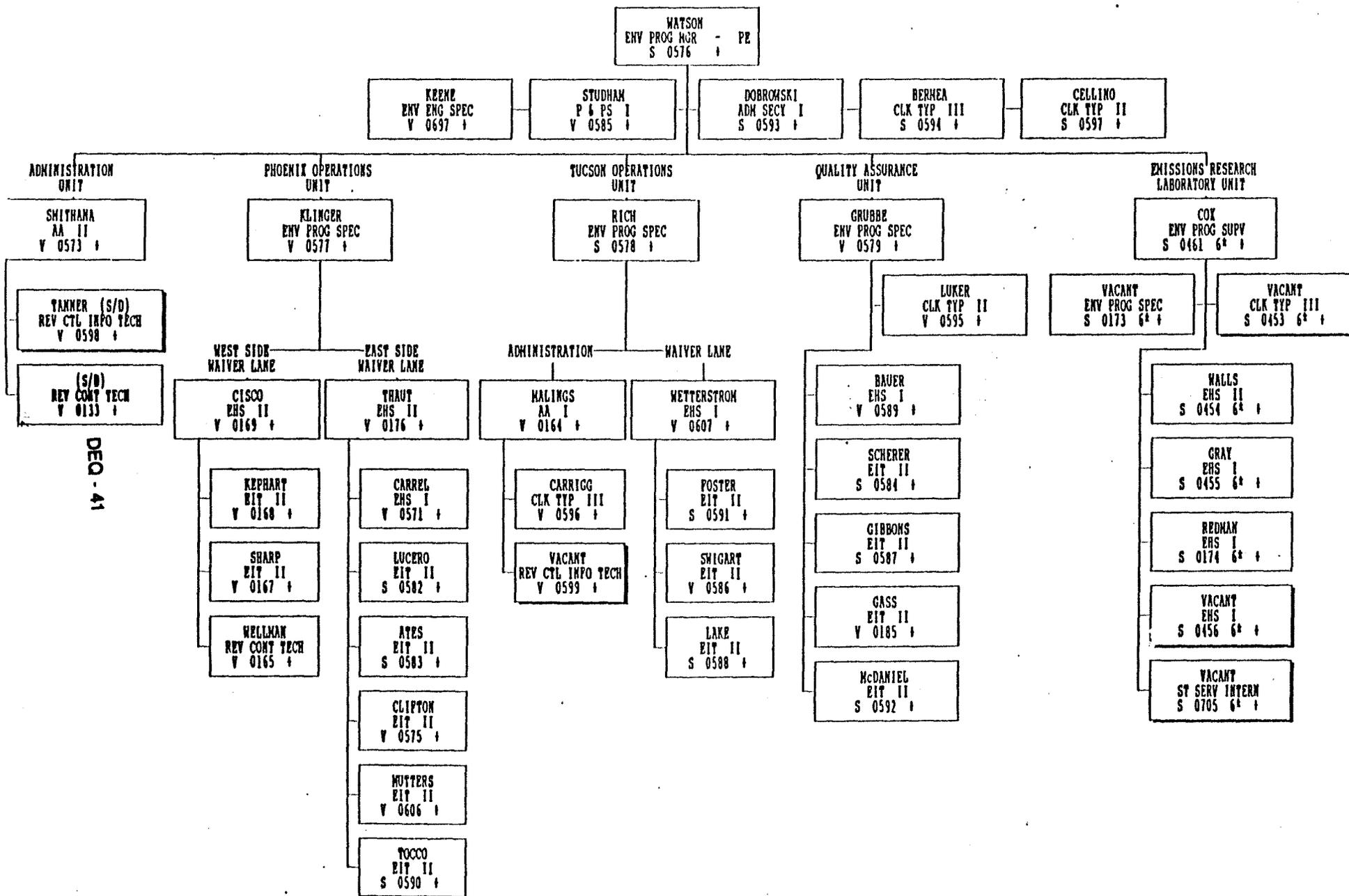
DEC - 40

WAIVER SUMMARY 1991 CALANDER YEAR COMBINED

	REQUESTS	PASS	%PASS	DENIED	%DENIED	WAVIER	%WAVIER	TAMPERING		
								REQUEST	PASS	FAIL
JAN	3059	774	25.30%	1014	44.38%	1271	55.62%	138	97	51
FEB	3176	625	19.68%	989	38.77%	1562	61.23%	114	62	52
MAR	3441	656	19.06%	1203	43.20%	1582	56.80%	166	80	86
APR	3911	780	19.94%	1390	44.39%	1741	55.61%	205	110	95
MAY	4173	670	20.95%	1523	46.11%	1780	53.89%	198	79	119
JUN	3868	797	20.60%	1472	47.93%	1599	52.07%	290	139	151
JUL	4785	1123	23.47%	1824	49.81%	1838	50.19%	580	284	296
AUG	4942	1204	24.36%	1782	47.67%	1956	52.33%	788	426	362
SEP	4435	1092	24.62%	1518	45.41%	1825	54.59%	553	279	284
OCT	4436	1130	25.47%	1479	44.74%	1827	55.26%	632	314	318
NOV	0	0	ERR	0	ERR	0	ERR	0	0	0
DEC	0	0	ERR	0	ERR	0	ERR	0	0	0
TOTAL	40826	9051	22.50%	14194	45.53%	18981	54.47%	3664	1960	1914

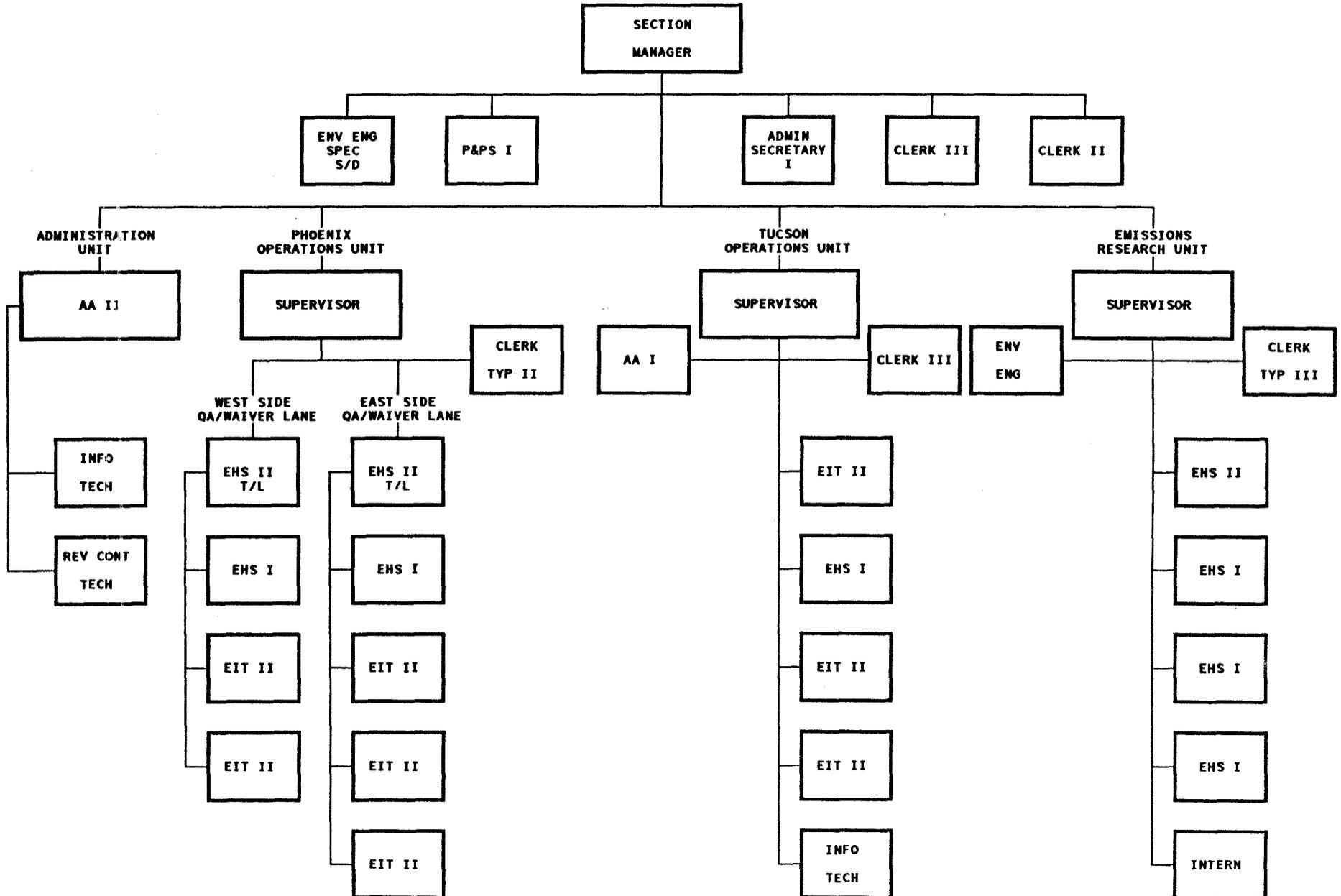
DEQ - OFFICE OF AIR QUALITY
 VEHICLE EMISSION SECTION
 JANUARY 01, 1992

Exhibit 15



PROPOSED ORGANIZATION
 DEQ - OFFICE OF AIR QUALITY
 VEHICLE EMISSION SECTION

EXHIBIT 16



DEQ - 42

"DENIED" PORTION OF WAIVER LANE PROCESS

Current Situation

Once a vehicle has exhausted the normal emission test options administered by the contractor Gordon-Darby, the vehicle is referred to the ADEQ waiver lanes (see Exhibit 12, Waiver Lane Process Evaluation - Flow Chart).

In our interview we learned that 47,000 requests for waivers in Maricopa and Pima counties does not mean vehicles. A given vehicle may pass through the waiver lane several times before it gets a pass or a waiver. Some of the "Pass" certificates and some of the "Waiver" certificates are issued the first time through and those would equal a single Vehicle. Other "Pass" and "Waiver" certificates are issued after a vehicle has already been denied one or more times. If a vehicle does not get a "Pass" or a "Waiver" it always gets a "Denied" certificate.

In the Gordon-Darby testing a vehicle is allowed two passes for a \$5.40 fee. A vehicle may pass through the waiver lanes an unlimited number of times and only pays a \$5.00 fee for either a "Pass" or "Waiver" certificate.

The number of certificates issued for 1991 was approximately 10,800 "Pass", 20,500 "Waiver" and 17,000 "Denied" (see Exhibit 13, Phoenix Vehicle Emissions Waiver, Statistical Summary, and Exhibit 14, Emissions Waiver, Summary). 10,800 "Pass" certificates X \$5 = \$54,000, and 20,500 "Waiver" certificates X \$5 = \$102,500, for a total revenue of \$156,500.

Impact

Because the waiver lanes track only certificates issued rather than certificates and vehicle identification, there are substantial impacts because management:

- Cannot determine how many vehicles are not in compliance following normal testing procedures at contractor site
- Cannot determine how many vehicles never meet emission compliance
- Must use more resources to process vehicles which pass through multiple times.

According to our interviews almost everyone who is given a "Denied" certificate returns to the waiver lanes at a later date. We were also told that many vehicles which eventually still cannot meet compliance requirements for emissions simply go outside the attainment area and secure a post office box, using that address for vehicle registration, thus no longer requiring any emission testing.

It is unknown how many vehicles presently operate inside the attainment area and thus illegally circumvent the emissions testing requirement year after year. It is likely that this number is growing each year.

Under the current situation, they are processing 17,000 "Denied" certificates using four minutes per certificate which turns out to be 68,000 minutes or 64 % of one FTE.

Since there is no charge for "Denied" certificates, \$34,000 is not being recovered because they never pay their \$5.00 charge.

The customer may have to make several trips to the waiver lane in order to accomplish compliance which causes inconvenience.

Recommendations

We recommend the following actions be taken:

- That both Maricopa and Pima Counties operation units track both Certificates and Vehicles
- Waiver lanes not accept requests that have not met the corrective action requirements of previous emissions testing
- That a \$3.00 charge per waiver request be imposed, including "Pass", "Fail" or "Denied."

Benefits

Implementing these recommendations:

- Will allow the Vehicle Emissions Section to determine how many vehicles are not in compliance
- Under the current system, with 31,300 vehicles being issued a "Pass" or "Waiver" at \$5.00 each, the Department receives \$156,500
- Under the proposed system, it is estimated there will be 31,300 Certificates, Pass or Waiver requested, each of which will be charged \$3.00, for a revenue of \$93,900
- Also the 17,000 Denied Certificates would be charged \$3.00, or \$51,000
- If 90% of the 17,000 "Denied" Certificates return, then $15,300 \times \$3.00 = \$45,900$ more revenue would be generated
- The total revenue exceeding the current method of doing business would be $\$93,900 + \$51,000 + \$45,900 = \$190,800$ (proposed)- $\$156,500$ (current) = $\$34,300$
- There is also a public savings of \$62,600 to the vehicle owners who come in compliance during the first trip. This will encourage the other vehicle owners from making multiple trips.
- Additional benefits are as follows:
 - The financial load is borne appropriately by those who must return to the waiver lanes multiple times
 - The work load on the waiver lanes will be reduced since there are no "free trips"
 - The environment will benefit from the increased number of vehicles in compliance.

Implementation

Implementation of this recommendation may require:

- Publication of new or amended rules with an anticipated time frame of 9 months

- Public notification of the fee change
- Writing of appropriate policy and procedure, with any required new forms.

REVISION OF PUBLIC NOTICE/PUBLIC HEARING PROCESS

Current Situation

Operators of any designated air pollutant source under jurisdiction of ADEQ are required to obtain:

- An Installation Permit, prior to construction of the potentially polluting facility/operation
- An Operating Permit within 90 days of commencing operation (and, in some cases, prior to any operation other than to actually test equipment functioning)
- A Renewed Operating Permit every three years.

Additionally, DEQ receives citizen complaints regarding any permitted operation, and acts promptly to investigate and, as needed, bring into compliance any operation on which a complaint is received.

There also is a regularly scheduled, on-going compliance monitoring program designed to identify operations which are not functioning within their permit limits, and to cause them to achieve compliance.

- All of these Permit acquisition steps require
 - filing of applications
 - processing of the applications
 - public notice publishing
 - potentially require public hearings
 - compilation of Responsiveness Summaries
 - Engineer's time to respond
 - Clerical time to type
 - Staff resources to
 - print
 - mail
 - file.

Impact

Although the source applicant pays all costs (when identified and charged to them) for these activities, via the Permit Fee assessed, there still is a major direct monetary cost to the Department, the Source (which then is passed on to the public), and a major time impact.

A.R.S. 49-246.D (Ch. law 283, S.5, 1991) requires publication of a public notice of a pending application "once each week for two weeks," and provides that any person "may file a written objection to the permit within 15 days after the last publication of notice".

This time bracket provides a span of 23 days from first publication to the last comment being accepted. In practice and by Rules, the Department accepts these comments for a period of 30 days from the date of first publication.

The request for a public hearing may be made by any person and, while not further delineated in statute, the Department follows the same published notice and time lines as for the Permit notice.

Depending upon the complexity of the application and operation, there may be from one (probably the permit engineer) to several (including the Director, Assistant Director, Section Chief, Unit Administrator, Ombudsman, and clerical staff) Department personnel in attendance at the public hearing. A Hearing Officer, either of Department staff or by outside contract, must be provided. Clerical staff record the proceedings, and later transcribe them. The permit engineer also must provide a response to every comment submitted, a process of several hours to a week or more, thereby creating a document known as the "Responsiveness Summary."

The time and fiscal impact of this process is extensive - even though we are advised that only about 10% of the approximately 300 Permits processed per year generate any significant public comments. Although there is not a high proportion of public hearings held (one report was 15 or fewer in the last 18 months; another stated "not more than one or two per month," which would equal 12 to 24 per year), all Permits (installation, original operating, and renewal) are published for public notice, and all comments received require written responses by the engineer.

Recommendations

We recommend taking the following actions:

- Amend A.R.S. 49-426.E to require published public notice, and potential public hearings, only at the time of issuing an installation permit. This will eliminate the duplicate process for Operating and Renewal Permits.
 - The installation permit process provides the in-depth review of all technical data on the operation
 - The installation permit must be obtained prior to construction of the facility,
 - or prior to any major changes in a facility's operation or equipment components
 - The Department provides the public an adequate and very responsive vehicle, through the Compliance Inspectors, for voicing complaints and concerns about the operation of any permitted facility
 - Citizen complaints are accepted at any time, not just at an issuance or renewal cycle
 - Citizen complaints are promptly investigated and enforcement measures taken, to the maximum extent available to the Department
 - The public notice/public hearing process serves the monitoring interest of the public less effectively than does the citizen complaint process, while being both duplicative and more costly.

Benefits

Benefits of implementing these recommendations include:

- Computing the potential number of staff involved in publishing, receiving and responding to Public Notice, in an anticipated average publication (required by all 300 Permits issued annually), the Department expends approximately \$340 each, or \$102,000 annually on this process

- Assuming an additional 15 Permits per year go to the Public Hearing process, and computing average staff involvement, time and associated costs, the Department is expending an additional \$1,400 per hearing, or \$21,000 per year for the hearings
- Added to the \$102,000 for the public notices, this totals \$123,000 expended for these processes, based on the estimated number of times it is utilized, and costs associated
- Reduction of the staff time involved in preparing for, attending and responding to public comments and public hearings for after-the-fact operations (facilities already constructed under a permit, and found to be operating according to that permit) will save a significant portion of that \$123,000
- Using the FY 91 data which showed a total of 51 Installation Permits issued, the remainder of the 300 annual permits would be Operating and Renewal which, under these recommendations, would no longer involve the public notice/public hearing process. Applying that percentage to the total cost estimated above shows a potential savings of \$102,090 per year
- Staff time now involved in preparing for, attending and responding to public notices and public hearings can be directed toward processing of permits, thereby reducing the reported backlog without employing additional staff.

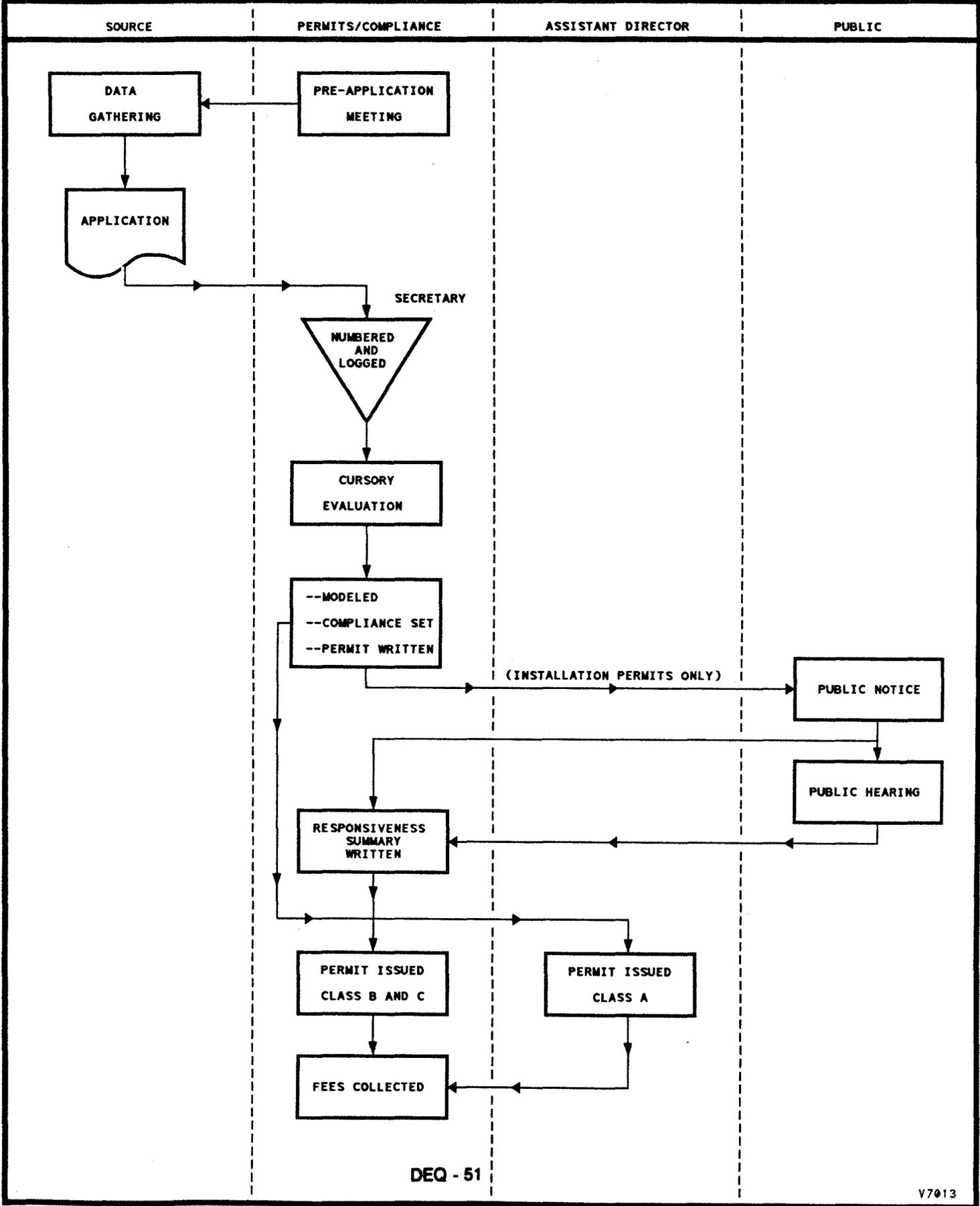
Implementation

- A.R.S. 49-426.D will need to be amended. It could be 13 months minimum prior to statutory authorization to change these procedures
- Draft appropriate Administrative Rules to cover the change, which could be accomplished within the same 13 month period (draft, and have ready for submission when the law was changed).

PERMIT APPLICATION PROCESS - PROPOSED

AIR QUALITY DIVISION

EXHIBIT 17



COMBINING PERMIT AND COMPLIANCE UNITS

Current Situation

One Unit within the Air Quality Division, under the Permits and Compliance Section (which has no Manager at present) is charged with writing and processing Permits for Installation, Operating and Renewal Permit Applications from Sources.

Their work, however, depends on input and review from the Compliance Unit of this Section, and from the air modelers assigned to the Evaluation Unit of the Air Quality Section.

Under the current structure an estimated backlog exists of 300 permit applications. The Compliance Unit conducts inspections of existing and planned facilities, to determine compliance with permit requirements and to respond to citizen complaints. The protection of public health and the environment are thus addressed, with these inspections possibly resulting in administrative enforcement, civil complaint or criminal actions, thereby improving the Department's ability to protect health and the environment.

Impact

Because of the need to send data from the Permits Unit to the modelers, and to both obtain data from and have reviews of the applications performed by the Compliance Unit, as well as having the final draft Permit signed off by both Units, there is considerable time lost in transferring data and information back and forth.

There also exists some duplications of effort (e.g., we are advised that permit engineers frequently perform their own modeling activities, to see if an applicant is "in the ball park", then request a formal modeling from that Unit as the official component of the permit), as well as opportunities for lost time, information and paperwork.

Currently there is no cross-training of these interrelated staff, and the permit engineers do minimal field work, so there is often no direct viewing of the operation for which they are writing the permit. On-site data gathering is performed by the Compliance Unit staff.

Recommendations

We recommend the following actions be taken:

- Adopt the recommendations in "Revision of Public Notice/Public Hearing Requirements," by which it is noted that the time required for working Permits of all classes will be significantly reduced
 - Action relative to this Point will free time of the engineer from having to prepare documents for public notice, prepare for and attend public hearings, and compile and prepare "responsiveness summaries" for all comments received on all Permits. Thus, increased time will be available for processing more reports per year per engineer
- Adopt the recommendations in "Assignment of Modeling Workload" and the recommendations in "Draft Permit Review Process Revision," by which much of the duplication and intra-Unit application transferring will be eliminated
- Delete the requirement for an Operating Permit issuance (with full application presentation and processing) at conclusion of a permitted installation, thus reducing by at least 20 per year the total number of applications being processed
- Combine the Permits Unit and the Compliance Unit into one functional Unit, cross train compliance engineers who will then be able to assist with the permit processing (thus even more readily allowing the 40 applications per year to be reached), while enhancing information exchange and flow, eliminating the time now spent in passing applications and permit conditions back and forth between Units
- Cross-train Permit Engineers to perform compliance functions, with the expectation they also will do the field site work for permit evaluations.

Benefits

- When the production is increased, through all the above steps, to 40 completed permits per year per engineer, total staff requirements will be seven and a half staff (round to eight).

Further, by reduction of the total applications/renewal reviews by 20, the staffing requirements (at 40 per year completed) will be seven

- With the combining of these Units, two vacant EES positions and three filled EES positions in the Permits Unit may be eliminated which will result in cost avoidance of \$86,860 and cost reduction of \$130,290
- No supervisor will be needed as staff will be reporting directly to the Section Manager through Team Leaders, therefore two supervisors may be eliminated for a savings of \$104,300
- One vacant Administrative Secretary I may be eliminated for a savings of \$19,103.

- Total savings:	- cost avoidance	\$112,087
	- cost reduction	<u>228,466</u>
	Total:	<u>\$340,553</u>

The breakdown of savings are: State funds \$192,823; Federal funds \$104,299 and Other funds \$43,430.

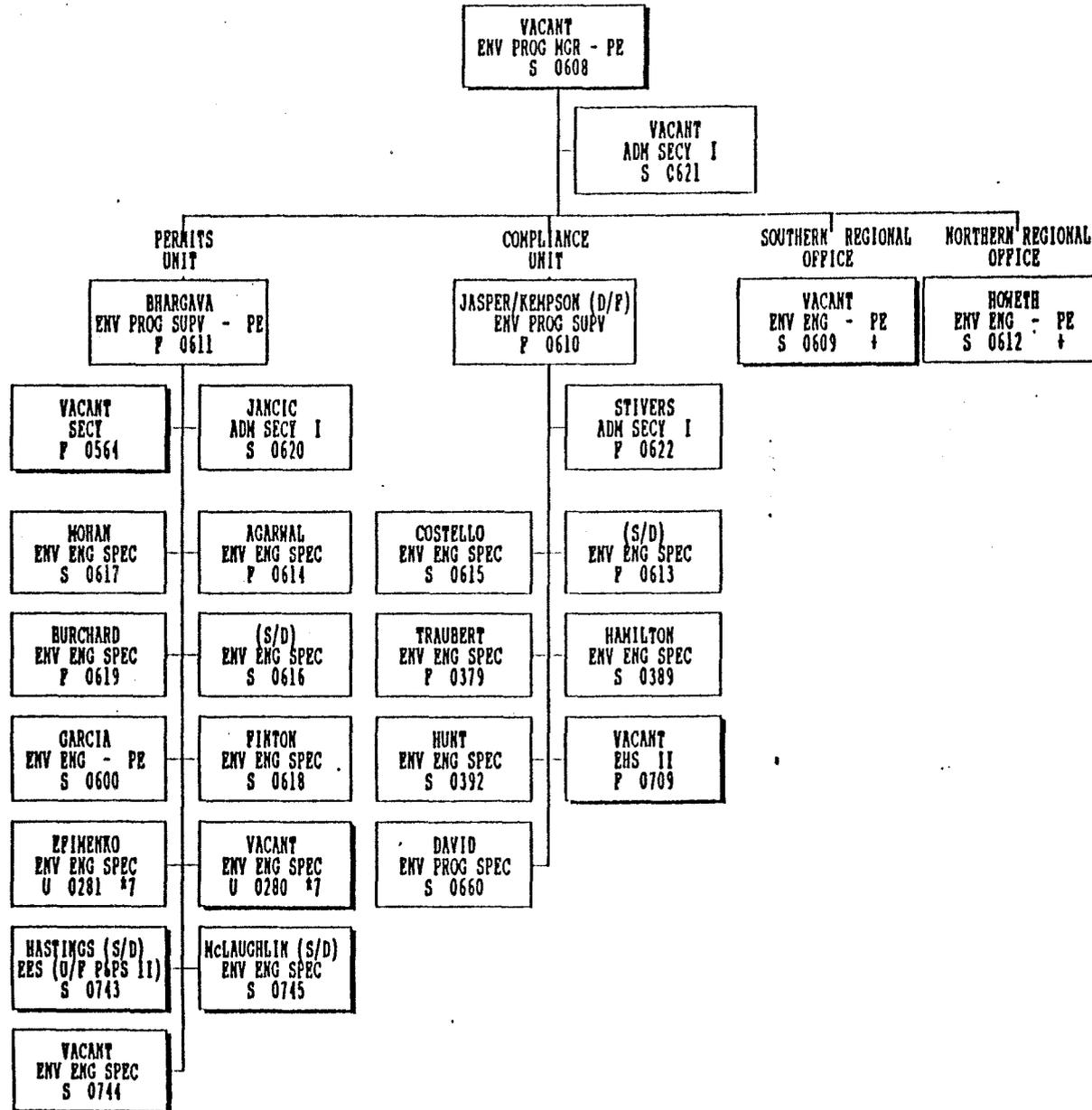
Implementation

Placing these combined recommendations into effect will require:

- Adopting the cited recommendations, with the time frames set forth as a part of those Points
- Restructuring of this Section, per the attached Draft Organization Chart
- Redeployment of those persons who positions are now eliminated
- Time frame: Approximately 2 months.

DEQ - OFFICE OF AIR QUALITY
 PERMITS & COMPLIANCE SECTION
 JANUARY 01, 1992

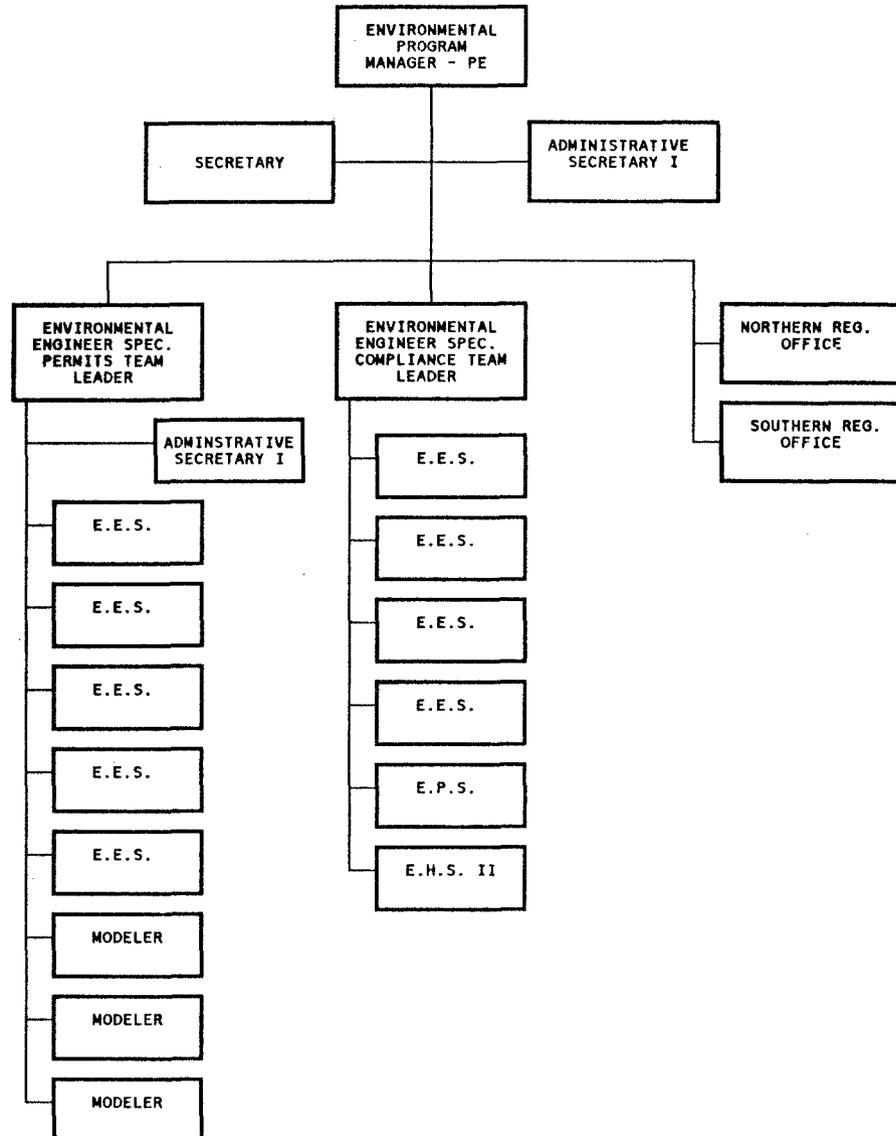
EXHIBIT 18



DEQ - 55

PERMITS AND COMPLIANCE SECTION
PROPOSED ORGANIZATIONAL STRUCTURE

EXHIBIT 19



DEQ - 56

PRE-APPLICATION MEETING REQUIREMENT

Current Situation

Pre-application meetings are not now required of applicants and, while generally they are conducted with major source applicants, they are called at the discretion of the person who may initially be contacted by the applicant. An engineer is not currently assigned to the application until after it is filed, which may be over two years from the date of first contact.

Attendance at any pre-application meetings now held will usually include only the Air Quality Division staff and the applicant. If the applicant happens to initially contact the Department's Ombudsman, he might involve personnel of all Divisions which will be impacted by the Applicant's operation.

Major Source Permit Applications almost always generate "deficiency letters," or written requests from the assigned engineer back to the applicant, following the "cursory evaluation" of the application, to supply formulas, processes, descriptions or other additional information (see Exhibit 20, Air Quality Major Source Installation Permit Process, Flow Chart).

Impact

Applicants spend considerable amounts of time and money to prepare applications, according to their best understanding of what D.E.Q. requires. These applications are very complex, and may be extremely confusing to an entity which does not regularly deal with the forms and terminology. Extensive engineering and mathematical computations are likewise required to complete these forms. The result for major source applicants, in almost all instances, is their submitting an incomplete application, or one which does not answer all the questions which the engineer might have about the source of the data provided, the manner in which it was calculated, or the format in which it is provided. This was expressed as being essentially up to the discretion of the engineer assigned to work up the permit.

- Significant time may elapse (two to six months) between the filing of the application, and the receipt by the applicant of any notice there is a deficiency in that application. (Further discussed in the "Cursory Evaluation" point)

- The applicant may not be in touch with all components of the Department who may require permitting for this particular source operation, unless the applicant "accidentally" comes into contact with the Ombudsman, or with someone who advises contact with that office to arrange a comprehensive meeting
- The Source is required to augment data originally submitted, at the discretion of the assigned Permit Engineer, several months after the original document is provided, resulting in time loss and dissatisfaction with the service provided
- Based on the Permits Issued Log, of which a copy was provided, in FY '91 there were a total of 84 Permits issued. Fifty-one (61%) of which were Installation Permits; thirty-three (39%) were Operating Permits. From analysis of that log, it appears approximately fourteen (17%) of the Installation Permits were for Class "A," or Major Source, operations, with a total of 67 Permits of all classes issued in the year
 - Class "B" Permits, for major equipment installation or changes, are estimated at only one or two per year
 - Class "C" Permits for minor sources or "portables" (i.e., any operation which can be entirely relocated into another geographical area) are estimated to be 75 per year.
- The engineer's work in preparing the permit draft is delayed by having to prepare "deficiency letters," and await response, then provide the required information.

Recommendations

We recommend taking the following actions:

- Requiring pre-application meetings for all Major Source applicants, and for all Class "B" and "C" (including portables) of any complexity
- Requiring attendance by appropriate representatives of all Divisions whose oversight will be impacted by the applicant's operation if/when constructed

- Ensuring that, as nearly as may be reasonably determined, all information required together with the format and criteria for its presentation and supply, are presented to the applicant prior to the end of the meeting, with as many questions answered as possible
- Assigning the Permit Engineer to the application prior to the pre-application meeting, to assure the best processing.

Benefits

The benefits of implementing these recommendations will include:

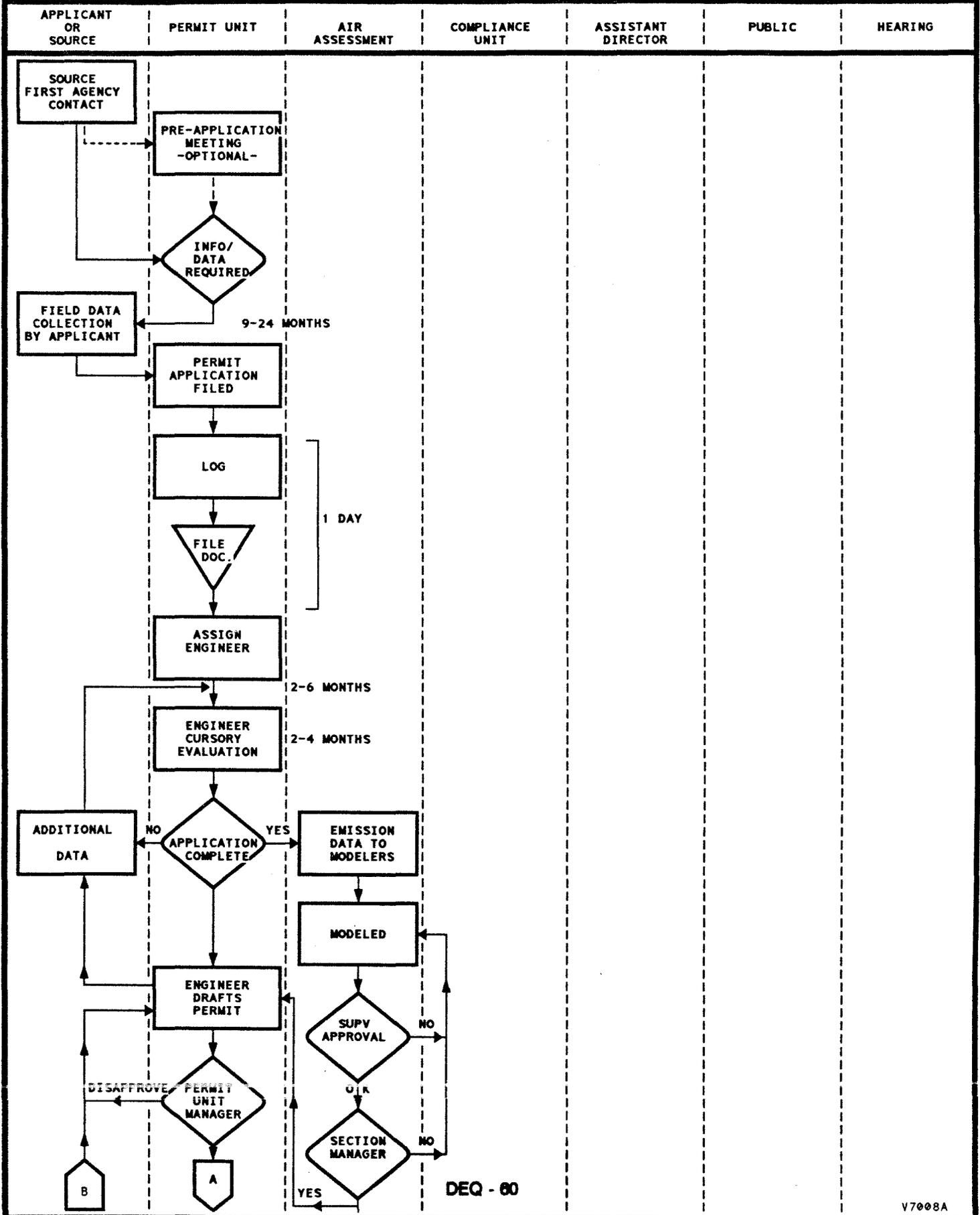
- A significant reduction in the number of deficiency letters prepared and sent. This will result in minimizing the delays in commencing and preparing the applicant's Permit
- Reduction of the engineering and clerical staff time currently expended on composing, typing, mailing, logging, tracking, receiving and analyzing deficiency letters, and the responses to them
- The implementation of this recommendation will communicate to the customer-public the Department's desire to actually be a service provider, concerned with the needs of its clients, while performing the appropriate reviews to protect the environment.

Implementation

- Training and, perhaps, Rules or Procedures will need to be implemented
- Establish a single initial-contact point within the Department, whose responsibility will be to set up the pre-application meetings, and arrange for the appropriate D.E.Q. personnel to attend.

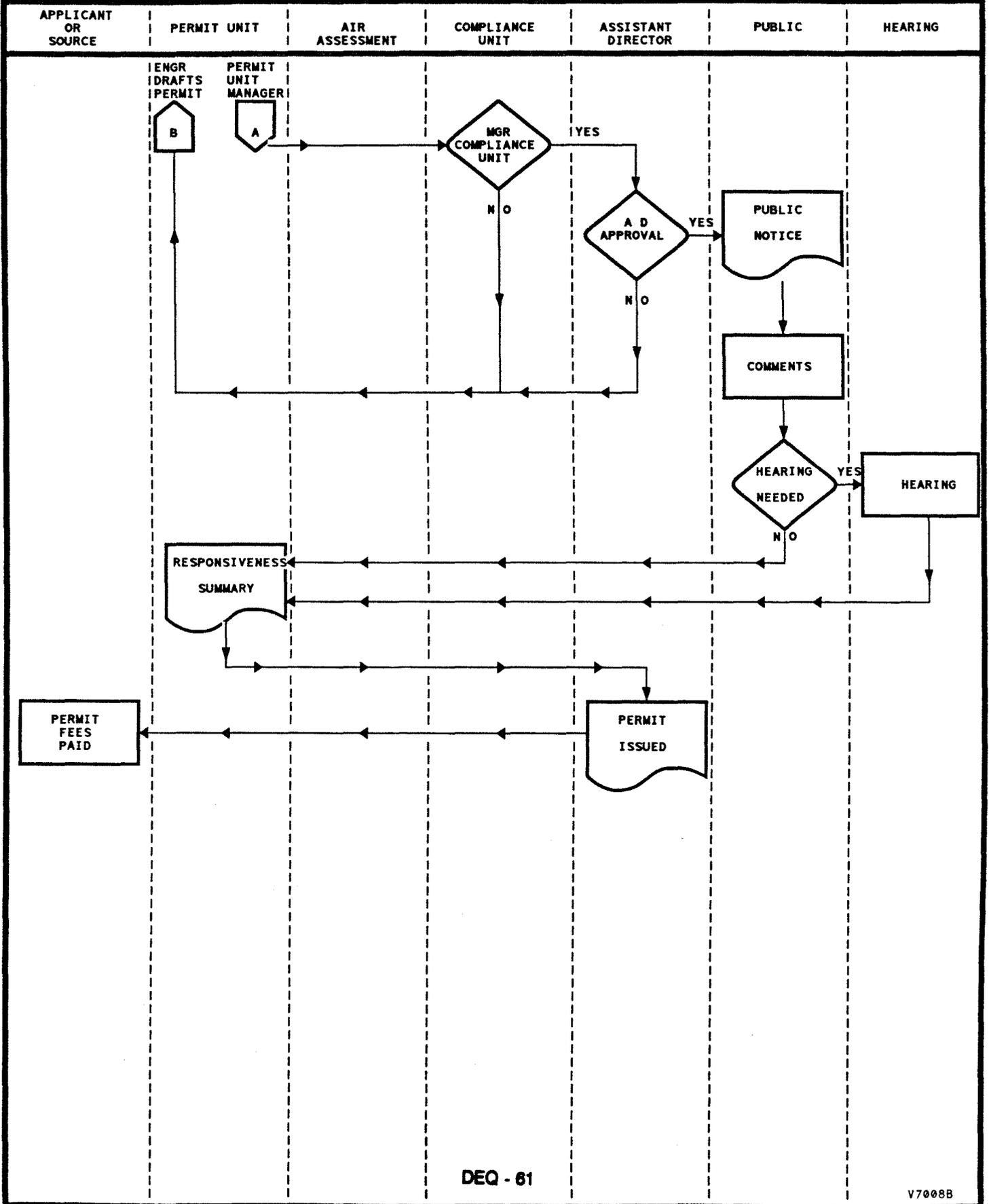
PERMIT PROCESS

EXHIBIT 20



MAJOR SOURCE - INSTALLATION PERMIT PROCESS

EXHIBIT 20



CURSORY EVALUATION IMPROVEMENT

Current Situation

Permit applications are received from the Source (applicant) either by mail or hand delivery. After logging and data entry (a same day clerical function) they are hand delivered to the initially assigned Permit Engineer.

These applications routinely lie in that engineer's file rack for anywhere from four to six months, while the engineer completes work on any projects he may already have in progress, prior to being evaluated by the engineer for completeness and adequacy of the submitted data (this is the "cursory evaluation").

If deficiencies exist (and we are informed that, at present, it is almost guaranteed there will be some; reference "Pre-Application Meeting Requirement"), the engineer then will prepare and have sent to the Source a "deficiency letter," which outlines that information still required. The application file then is returned to the engineer's file rack to await response from the Source in providing that necessary data. This delay varies with the Source, and with the clarity of the deficiency letter.

Impact

Significant time delays (four to six months, perhaps longer) exist in commencing the permit processing, during which time the applicant has no communication with or from the Department.

After that time period the applicant is informed, by letter, that new or additional data, or even a complete refiling of the application, is required. The applicant's staff and/or the consultants who first prepared the application now must become re-acquainted with that process and all that is involved. This contributes to the three to six month response time delay described by the permit engineers.

Recommendations

We recommend taking the following actions:

- Require the cursory evaluation of all applications to be started within 15 working days of its logged receipt
- Reorganize the permit engineer's work load to designate one person to be the primary cursory evaluation engineer, perhaps a junior engineer within the Unit
- This person should have consulting access to other engineers, particularly the one to whom this application has been primarily assigned
 - Having a single (junior) engineer doing all cursory evaluations, with consult access as described, will allow the regular engineers to continue, without significant interruption, the permit processes for those applications which are complete.

Benefits

The benefits of implementing these recommendations will include:

- Better response from the applicant on deficiencies, due to their having more recency to the work previously done in preparing the application
- Improved customer attitude, knowing D.E.Q. is working on their project application
- Time savings for the engineer by eliminating the "refresher time" between the cursory evaluation, and when the applicant finally responds to the (any) deficiency letter.
- Calculated savings include:
 - Major Permits: 3 days = 24 hours @ \$16.85 per hour = \$400.00 X 1.25 = \$500.00 per Permit
 - \$500.00 per Permit X 14 Major Permits = \$7,000.00
 - Minor Permits: 1 day = 8 hours @ \$16.85 per hour = \$16.85 X 1.25 = \$21.06 per Permit
 - \$21.06 per Permit X 37 Minor Permits = \$779.22.

Implementation

Implementation of this Point must follow the implementation of the Recommendation "Pre-Application Meeting Requirement."

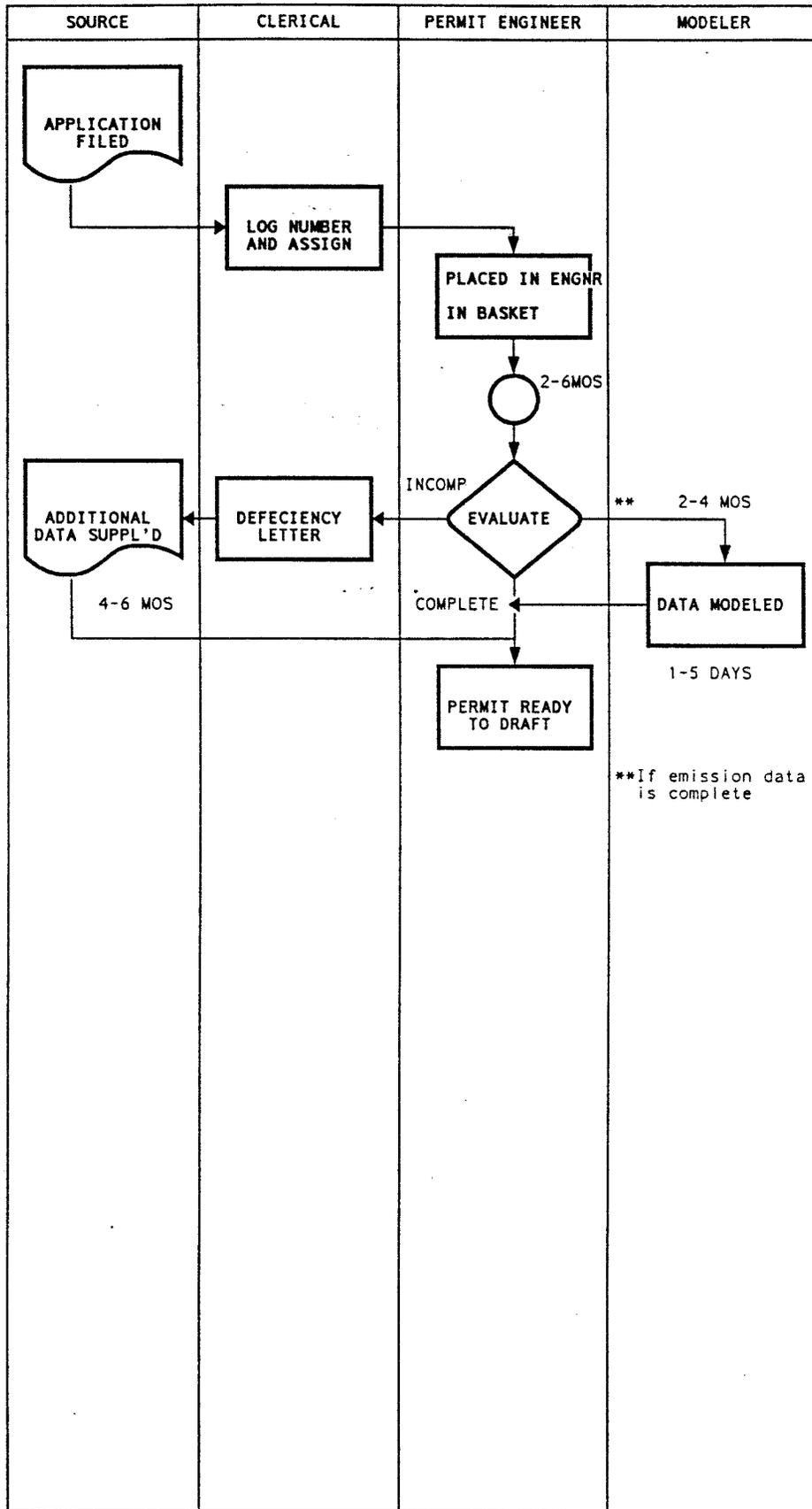
- By cleaning up the original applications through the pre-application meeting mandate, the cursory evaluation will require less time, and be more capable of being carried out as described above.

It should thereafter be possible to implement this recommendation within one month, by:

- Writing appropriate job descriptions
- Making required job assignments
- Preparing necessary Procedures.

PERMIT APPLICATION CURSORY REVIEW

EXHIBIT 21



DRAFT PERMIT REVIEW PROCESS

Current Situation

Complete draft Permits (both Installation and Operating) are sent by the engineer to the Permits Unit Manager for review and sign-off, or return. (Normally, it is assumed, approved Permits would go to the Permits and Compliance Section Chief, presently a vacant position, for review and sign-off, or be returned to the Permits Unit Manager.)

Approved drafts then are sent (a lateral move) to the Compliance Unit Manager, who reviews them to determine that mandated conditions can be met, and Compliance staff can test to assure compliance. Requests for edits of the Permit conditions are returned to the Permits Unit Manager, and Engineer.

Approved drafts are forwarded to the Division Assistant Director for review and signature (or rejection).

If all aspects of the Permit are approved, it is forwarded to the appropriate area for preparation of the Public Notice (reference Recommendation "Revision of Public Notice/Public Hearing Process"). Disapproved applications will be returned to the Permits Unit for appropriate editing.

Impact

Time delays occur in completing this endorsement/approval of the completed Permit draft, amounting (as we are told) to anywhere from two days to a month or more. This circulation of the completed document delays the application, slows down timing of the Public Notice/Hearing; creates additional tracking and handling time and energy demands, and extracts costs from all segments involved.

Recommendations

We recommend taking the following actions:

- As the engineer gathers data from which to develop the Permit, the Compliance Section should be consulted relative to their concerns and needs. That consultation should be signed and incorporated in the Permit document. Eliminate the route slip sign-off to Compliance after completion of the draft Permit

- When the engineer has completed the draft Permit it should be signed by the Permits Unit Manager, forwarded to the Permits and Compliance Section Chief (when/if that position is filled), with the documentation from Compliance and Modeling Units incorporated, and clearly marked
- From that point, if approved, it should go directly to the Assistant Director, Air Quality Division, for Draft Permit signature, and then to commencement of the public notice processing
- Some information received indicated the completed draft and route slip is also sent back to Modeling, for signature of that Section Manager. If that is accurate, the following also is recommended:
 - Upon modeling completion/approval, let the above sign-off suffice; eliminate a return of the completed draft for route slip signing
- Delegate signature authority for all Class "C" (minor and portables) to the Permits Unit Manager, who is (and must be) a certificated Professional Engineer (PE)

Benefits

The benefits of implementing these recommendations will include:

- Routing time savings of from one to two weeks, or as much as one month would be realized. Maximum routing time would be reduced (from the engineer to the Manager to the final signer) to a maximum of three days, thus providing better customer service
- Lowered level of sign-off authority will significantly reduce time of processing reviews
- Speedier service provided to the customer (the applicant), is of significant value, although difficult to assign a dollar value
- Elimination of excess handling steps - clerical time to route; staff time to determine document process needs and to perform them; speed up of agency handling time

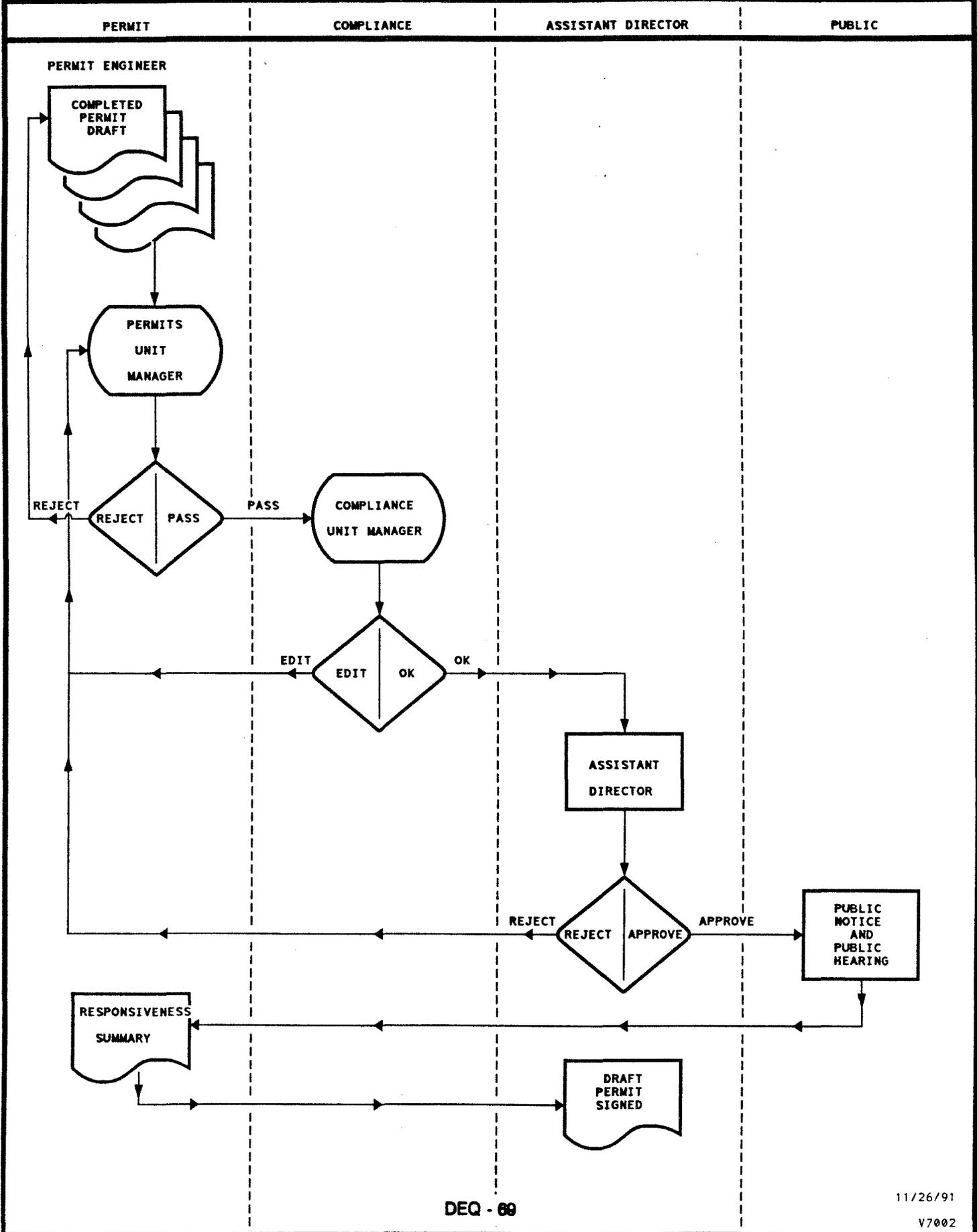
- Speeding up the elimination of the backlog of permit applications, (consistently related to us as being approximately 300, at an average value, from Permit Fees to be charged upon completion of \$5,000 each), represents a total outstanding uncollected value of \$1.5 to \$2 million dollars. Accelerated collection of these fees would be substantially improved by the process change which speeds up the completion and issuance of a requested permit.

Implementation

- Procedural changes and management decisions will suffice for these recommendations
- Time frame: Approximately 2 months.

CURRENT DRAFT PERMIT APPROVAL FLOW CHART

EXHIBIT 22



MONITORING UNIT, INSTRUMENTATION TEAM

Current Situation

The position of one Environmental Program Specialist, Grade 20, assigned to the Monitoring Unit has been vacant for several months. Information provided during our interviews did not reveal any backlog in the Units' activity due to this vacancy. Workload projections did not indicate a near future requirement for this position (see Exhibit 23, Air Assessment Section, Current Organizational Chart).

Impact

The elimination of this position would not have a detrimental effect on the operation of the Monitoring Unit. The mid-point salary, plus ERE for a Grade 20 position equates to approximately \$44,136 per year.

Recommendations

We recommend that the position of Environmental Program Specialist, Grade 20, be eliminated in the Monitoring Unit. The resulting organization chart is shown in Exhibit 26, Air Assessment Section, Proposed Organizational Chart.

Benefits

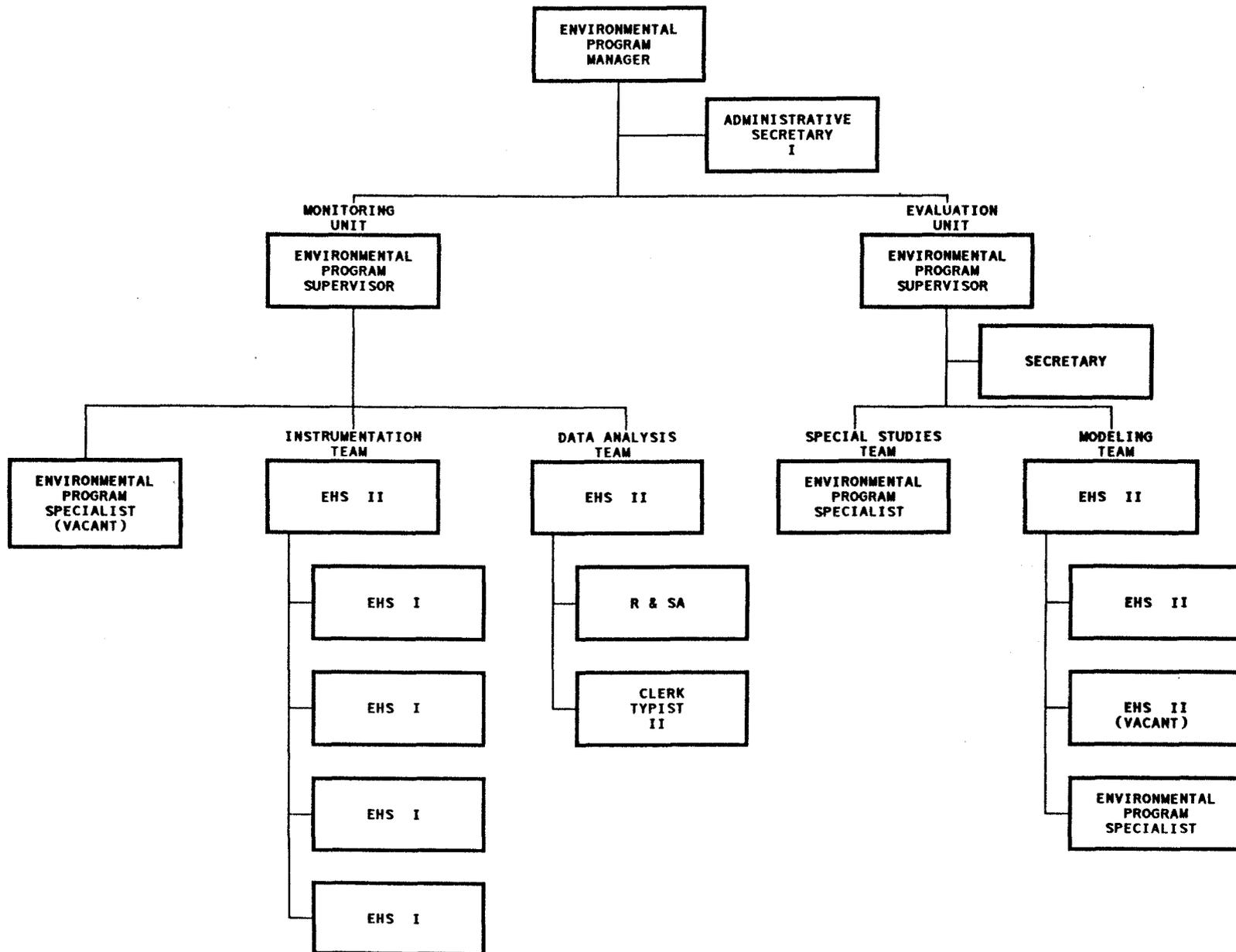
The recommendation will result in a budgeted FTE savings of \$44,136 per year (funds from UST).

Implementation

- Administrative action to prepare necessary personnel documents
- Time frame: Approximately 2 months.

**CURRENT ORGANIZATION CHART
DEQ - OFFICE OF AIR QUALITY
AIR ASSESSMENT SECTION**

EXHIBIT 23



DEQ - 71

REASSIGNMENT OF ANALYSIS TEAM

Current Situation

The principal activity of the analysis team is the processing of the various types of filters used in the air monitoring equipment. In addition, two of the FTEs assist in the conduct of special studies and prepare the monthly and quarterly reports. Actual analysis is not performed by this team.

The two analysts in actual practice report directly to the supervisor of the monitoring unit rather than the supervisor of the analysis team. The supervisor of the analysis team is engaged almost full time on the task of performing quality control in the instrumentation team efforts. This work is unrelated to the basis functions of the analysis team.

The organization chart for the Analysis Team and Instrumentation Team is shown in EXHIBIT 23, Air Assessment Section, Current Organizational Chart.

Impact

The above situation does not reflect the relationship or functions carried out in what is described as the analysis team, nor does it indicate a relationship with the modeling team which is situated in another organization, the evaluation unit.

Recommendations

We recommend that the position assigned to the analysis team be reassigned to the instrumentation function. The two FTEs who now perform the filter processing task should be assigned directly under the manager of the Air Assessment section. This proposed organization structure is shown in Exhibit 26, Air Assessment Section, Proposed Organizational Chart. This recommendation is related to those discussed in Recommendation "Monitoring Unit, Instrumentation Team."

Benefits

- The recommendations above will place the FTE performing quality tasks with like functions in the Instrumentation Team

- The placement of the two FTEs performing filter processing and assisting in special studies under the supervision of the section manager will eliminate two levels of supervision
- No direct cost reduction will be realized by implementing these recommendations, however the levels of supervision will be reduced.

Implementation

- Prepare necessary personnel documents for transfer of positions
- Time frame: Approximately 2 months.

ASSIGNMENT OF SPECIAL STUDIES FUNCTION

Current Situation

One FTE is assigned the function of special studies in the Air Assessment Section of Air Quality. The duties of this person basically are those of coordinating the special studies effort and monitoring the special studies budget, which will approximate \$5.0 million in FY 92. This function is closely associated with the activities performed in the Air Quality Planning Section. There is no effort in support of any field instrumentation or evaluation functions. The present organization of the Air Quality Planning Section is shown in Exhibit 24, Air Quality Planning Section, Current Organizational Chart.

It was discovered during the interview that there is a lack of coordination of studies monitored by this position with other sections or units within the office of Air Quality.

Impact

The functions performed by the Special Studies position do not impact any other team or unit within the Air Assessment Section.

Recommendations

We recommend that the FTE currently performing the tasks assigned be transferred along with functions, to the Air Quality Planning Section.

Benefits

The implementation of this recommendation will result in a more homogeneous assignment of the Special Studies effort with that of Planning, and physically place their function in close proximity with the related Planning effort. There is also an unquantified savings by eliminating duplicate or similar studies. The transfer of the special studies position is shown in Exhibit 25, Air Quality Planning Section, Proposed Organizational Chart.

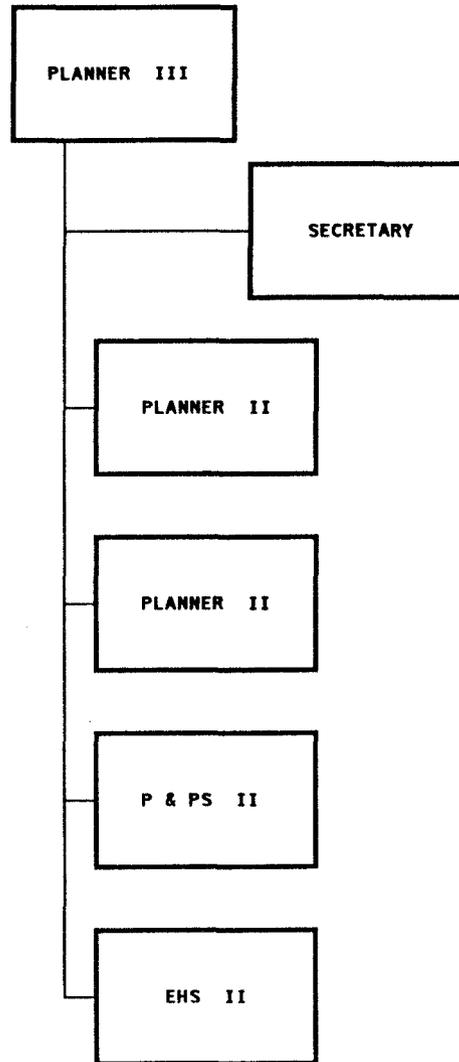
Implementation

Implementation of the recommendations will require personnel actions to reassign the individual and to re-structure the organization.

Estimated time line for implementation is 60 days.

CURRENT ORGANIZATION CHART
DEQ - OFFICE OF AIR QUALITY
AIR QUALITY PLANNING SECTION

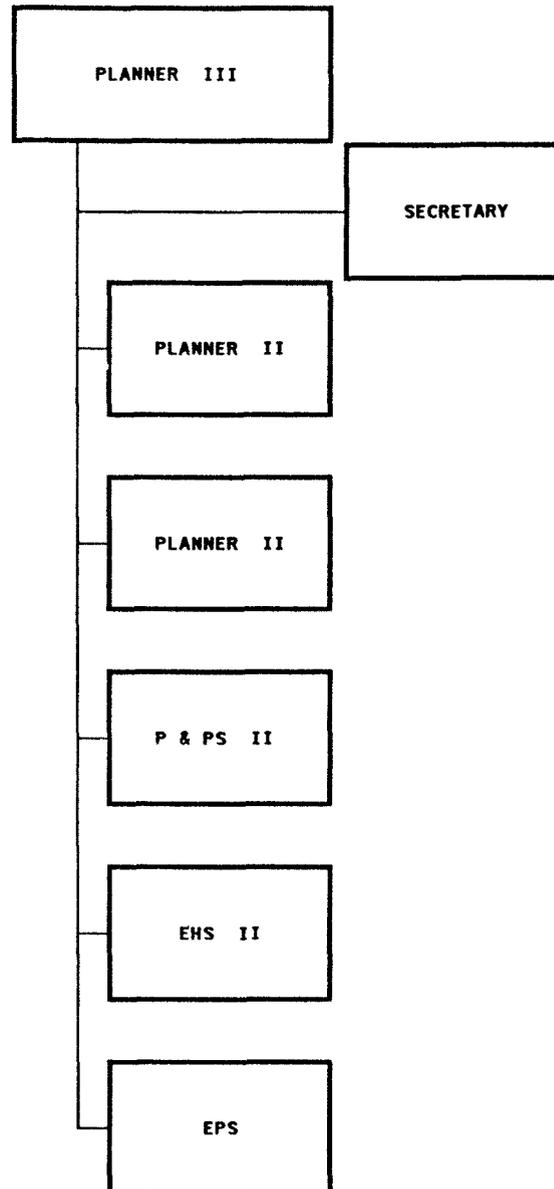
EXHIBIT 24



DEQ - 76

PROPOSED ORGANIZATION CHART
DEQ - OFFICE OF AIR QUALITY
AIR QUALITY PLANNING SECTION

EXHIBIT 25



DEQ - 77

ASSIGNMENT OF MODELING WORKLOAD

Current Situation

Personnel who perform the modeling tasks are now assigned as a team under the Evaluation Unit of the Air Assessment Section. There are two modelers, one supervisor and one vacant position in the Modeling Team. The current organization chart is shown in Exhibit 23, Air Assessment Section, Current Organization Chart.

Models are prepared based on the data provided by the Monitoring Unit and the Permits and Compliance Section. One modeler is fully dedicated to do modeling on the data provided by the Monitoring Unit which is used for studies and research, one being the Clean Air Act. The other two modelers, which includes the supervisor, do modeling on the data provided by the Permit and Compliance Section. These models are used to perform a complete evaluation of the viability of the permits and form the basis for a reasonable compliance effort. The modelers run the models, screen them for initial compliance, write up the screen results, and return their analyses to the Permit Unit through their supervisors and managers. The coordination effort between the modelers and the permits people is critical to the success and completeness of the permitting tasks.

The current organizational placement of the modelers requires that permitting decisions and reviews pass through five levels of supervision, requiring a minimum of two extra weeks in the permits process. Further, communication between the permits personnel and the modelers is made more difficult by the extra hands through which the present process flows. The current permitting process depicting the interaction with the modelers is shown in Exhibit 20, Permit Process Flow Chart.

The same coordination and communication impediments hold true between the modelers and the instrumentation team within Air Assessment, although to a lesser extent. One modeler on the modeling team spends most of his time devoted to the instrumentation team data, as mentioned above.

Impact

The current assignment of personnel in the Assessment Section results in a ratio of six supervisors to ten journeymen, with one team consisting of one person. Based on the information collected during interviews, the workload and amount of time required to accomplish it is as follows:

- There were 120 screen modeling and 30 refined modeling projects performed last year. The screen modeling takes about two hours to perform and one hour to review and write-up. The refined model is complicated and, therefore, takes about a week (40 hours) to perform and write-up. Therefore, the total amount of time required to actually do the tasks is $(120 \times 3) + (30 \times 40) = 1560$ hours which is equivalent to .93 FTE using 1675 working hours per person per year.

Recommendations

We recommend improving the current structure through the following steps:

- Transferring three modeler FTEs to the Permit Unit of Permit and Compliance Section
- Training Permit Engineers to run models and obtaining authorization from Permit Team Leader to sign-off on results of models
- Transferring the Environmental Program Specialist in the Special Studies Team to the Planning Section (as discussed in the Recommendation "Assignment of Special Studies Function")
- Eliminating three positions consisting of one Air Modeler (which is vacant EHS II), one Environmental Program Supervisor and one Secretary.

Exhibit 26, Air Assessment Section, Proposed Organizational Chart, shows the recommended organizational structure.

Benefits

The following benefits will result by implementing the above recommendations:

- Reduces permit processing time by a at least two weeks
- Relocates modelers within the functional units they serve, allowing ease of coordination and enhancement of communication
- Reduces a level of supervision not needed under a reasonable span of control

- Eliminates three FTEs resulting in a direct savings of \$102,222. One Unit Supervisor, grade 22 at \$52,998; one vacant Air Modeler, grade 19 at \$31,123; one Secretary, grade 11 at \$18,101. All of the salaries include ERE (employee related expense which is 25%). Cost avoidance \$31,123; and cost reduction \$71,099 - Total \$102,222. The breakdown of funding sources are: State funds \$18,101; Other funds \$84,121
- Transferring and eliminating of Air Modelers and Environmental Program Specialists will eliminate the Evaluation Unit.

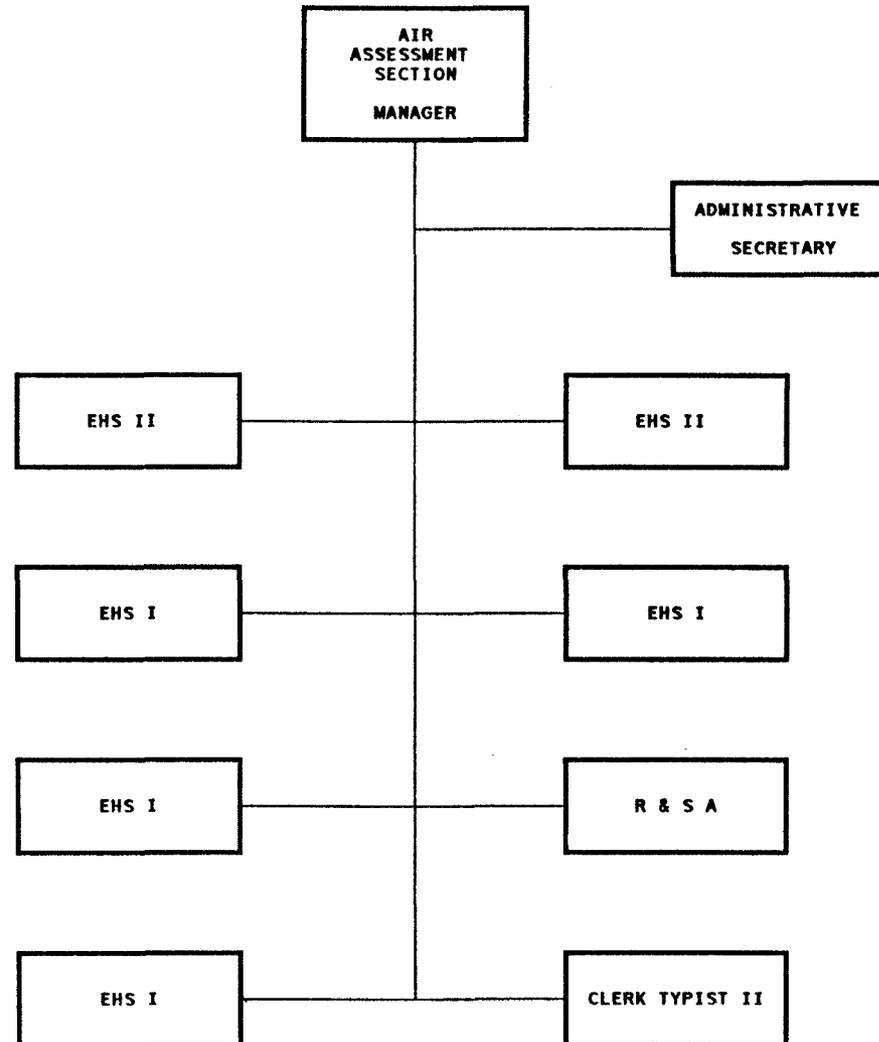
Implementation

Implementation will require only the administrative action, including personnel, to prepare necessary documents, personnel assignments and administrative procedures.

Estimated implementation time frame is approximately 60 days.

PROPOSED ORGANIZATION
DEQ - OFFICE OF AIR QUALITY
AIR ASSESSMENT SECTION

EXHIBIT 26



DEQ - 81

DEPARTMENT of ENVIRONMENTAL QUALITY

OFFICE OF WASTE DIVISION RECOMMENDATIONS

COMBINING FEDERAL FACILITIES AND THE PRE-REMEDIAL UNITS

Current Situation

The "Federal Facilities Site Inspection (DOD) Unit," is one of four Units in the Pre-Remedial & Remedial (Emergency Response & Remedial Projects) Section, presently having seven staff positions established, four of which are vacant. Although differentially funded, both this program and the Pre-Remedial Unit with ten positions (of which one is special detailed, and one vacant) are essentially involved in the same type of site inspection and evaluation prior to the initiation of any clean up activities, other than the Federal Facilities' concentration upon just military sites (see Exhibit 27, Pre-Remedial & Remedial Section).

The "site inspection and evaluation" activity includes the physical inspection of a site of a suspected contaminant spill, evaluating the type of chemical or other substance which has been spilled through visual screening and laboratory testing of samples taken. It also involves evaluating the substance's potential for penetrating through or running off the soil to an extent which will cause it to contaminate the ground water (aquifer). The DOD Unit has been created for the specific purpose of performing these evaluations on military property, such as Air Force Bases and National Guard locations.

Of the seven DOD positions, four are state funded, three are federally funded. All ten of the Pre-remedial Unit positions are federally funded. Within the Federal Facilities Unit, the present organizational chart shows the unit supervisor to be supervising three other positions of the same pay grade, two of which are the same title (Environmental Program Specialist).

Impact

Tracking of hours, project assignments and responsibilities seem to be confused between these Units at present, with a potential for duplicated efforts, lost responsibility and wasted time. That duplication of effort creates a loss of personal service hours and additional documentation, transfer efforts, directives and oversight.

Recommendations

We recommend the following actions be taken:

- Combine these two Units, with elimination of the below listed duplicated positions:
 - One currently vacant Unit Manager, Federal Facilities (DOD) Site Inspection (Environmental Program Specialist), grade 20, at \$43,430 per year
 - Two vacant Environmental Program Specialists in the DOD Unit, grade 20, at \$43,430 for \$86,860 per year; and one vacant Environmental Health Specialist II, pay grade 19, at \$38,926 annual
- Transfer one Clerk Typist III, one Environmental Engineer Specialist and one Environmental Health Specialist II to the Pre-Remedial Unit
- The changes referenced above are shown in the Proposed Organization Chart, Exhibit attached.

Benefits

Benefits of implementing these recommendations include:

- Savings (cost avoidance) of \$169,216 annually. Federal funds \$43,430, State funds \$38,926, Other funds \$86,860
- Better coordination of job assignments, hours worked and designated responsibilities of staff by eliminating much of the present duplication and wasted effort occurring because of having these divided duties
- More accurate tracking of actual hours invested, to enhance the agency's ability to assure cost recovery by providing a more streamlined, concentrated functional structure for this Section in which to carry out its evaluation and remediation responsibilities
- Less time lost in transferring documents, files and information between two different units.

Implementation:

Implementation requires a management decision to reorganize this Section as recommended above.

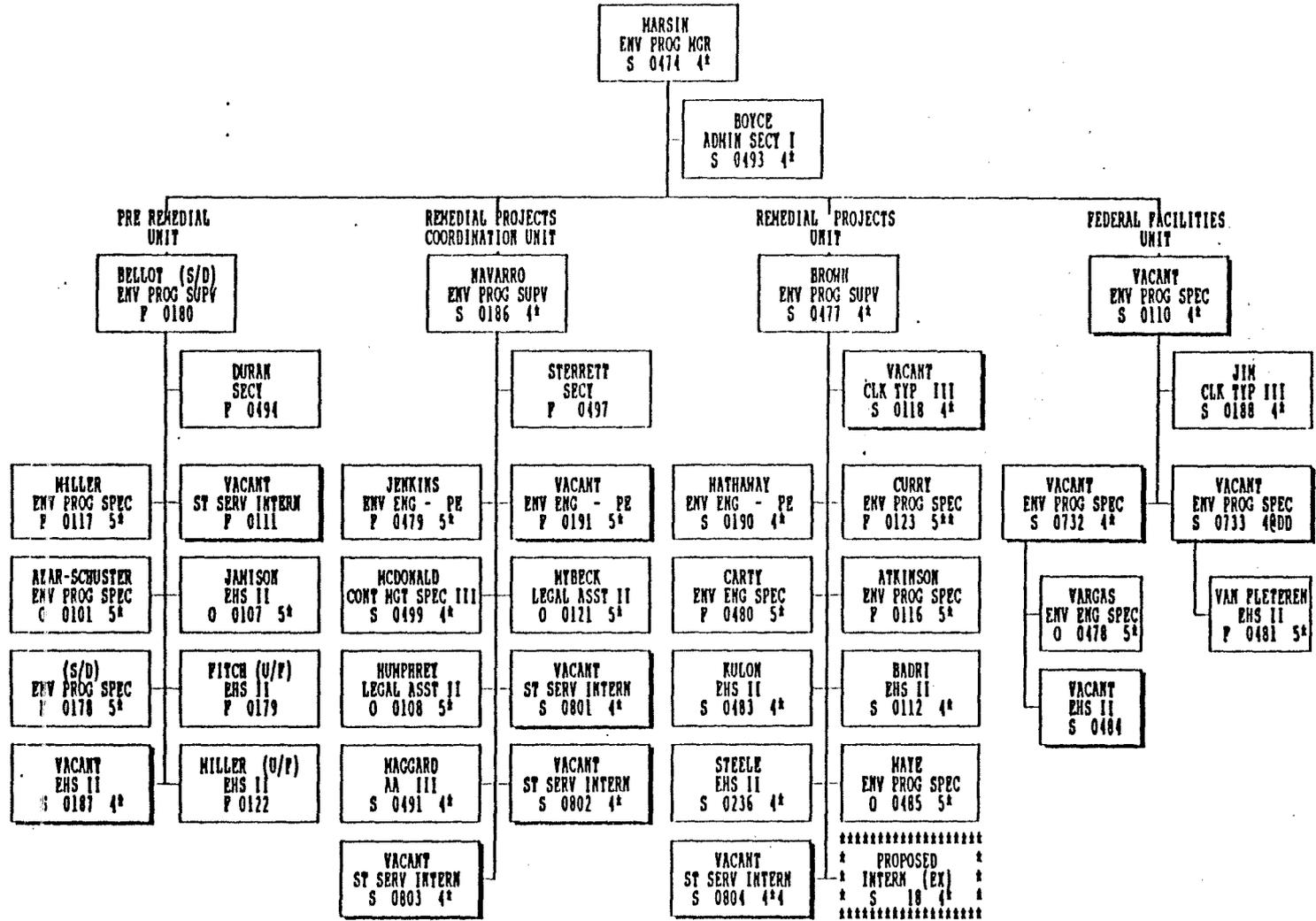
- Time frame: Approximately 2 months.

(NOTE - See "Contracting and Legal Services.")

DEQ-OFFICE OF WASTE PROGRAMS
 REMEDIAL PROJECTS SECTION
 JANUARY 01, 1992

EXHIBIT 27

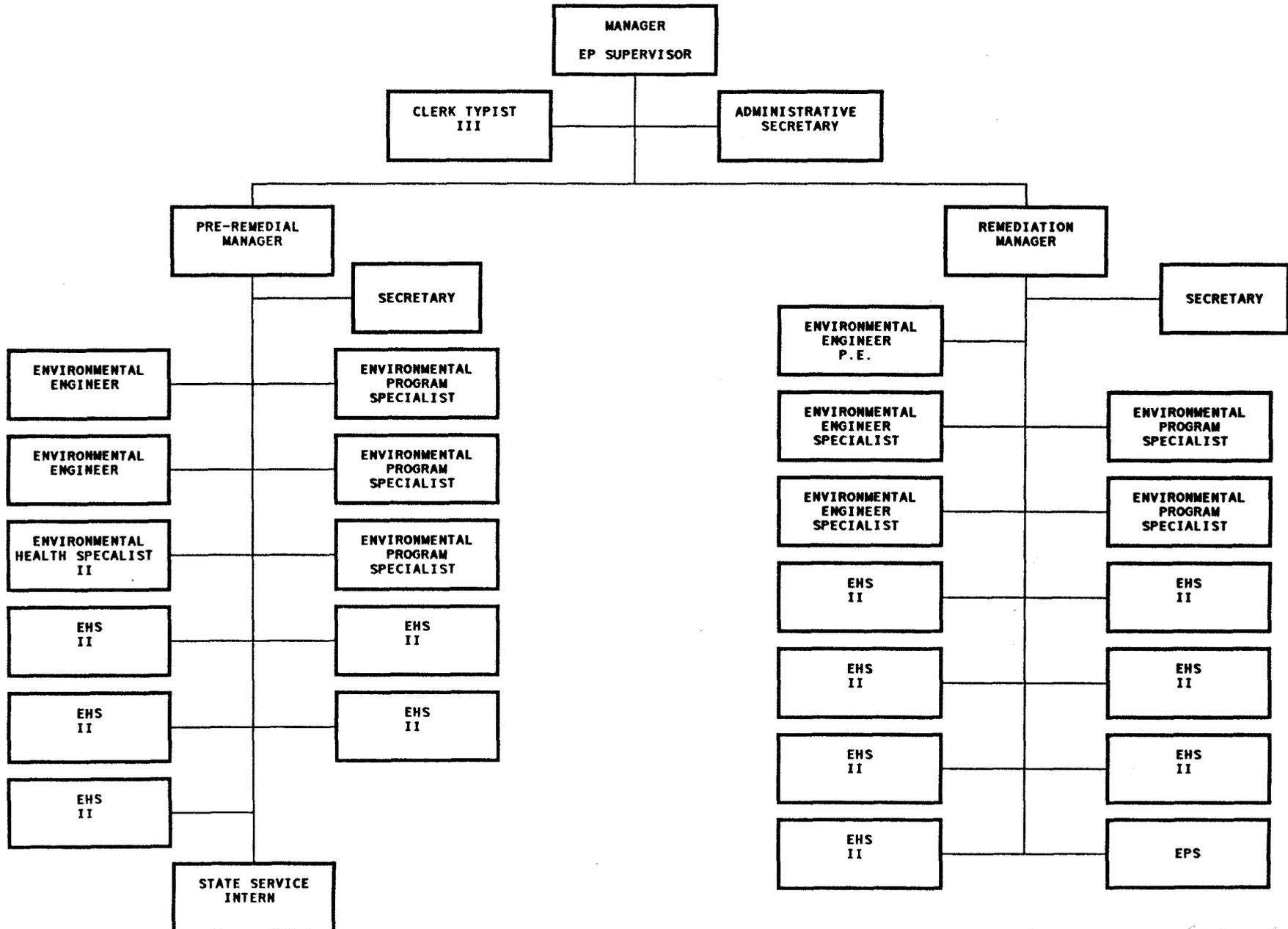
DEQ - 85



WASTE DIVISION REMEDATION SECTION PROPOSED ORGANIZATION CHART

EXHIBIT 28

DEC - 88



EMERGENCY RESPONSE UNIT

Current Situation

The Emergency Response part of this Unit receives and responds to Hazardous Waste Emergencies statewide. In 1991, Emergency Response (ER) will receive approximately 500 calls and will respond to about 50% or 250 of them.

The ER responds to hazardous material incidents which threaten public health or the environment.

The activities of ER are short-term, i.e., they respond, neutralize, wrap-up and refer over a period of a few hours to 21 days. These activities are currently handled by a Secretary, three Emergency Response Specialists and one working Supervisor position which is vacant at present (see Exhibit 29, Hazardous and Solid Waste Section, Current Organizational Chart).

The ER Specialists spend between 50-70% of their time on calls. Also, they rotate since they are on call 7 days a week 24 hours a day. This means that with 3 Specialists, every third week one Specialist is on call and must be ready to respond after hours or on weekends. There is also some emergency response training performed statewide by one of the Specialists. Approximately 20% of his time is used based on 1,675 productive hours. The process used by the specialists to handle emergencies arising from hazardous waste incidents is shown in Exhibit 30, Incident Process, Hazardous Waste, Flow Chart. Some incidents require backup if entry, requiring a "suit-up" in gear is necessary.

Impact

Emergency responses are sporadic in nature, i.e. there are times the team is very busy responding and other times they are not. They will average responding to about 21 calls per month.

A response in the field can require as little as one hour to as much as 21 days (this has only occurred one time). The average time required is approximately 8 hours including travel time, according to our interviews.

The incident log (see Exhibit 31, Property Release, Statistical Summary, Incident Log) indicates that 50-70% of the calls are within 2-3 hours drive from the Phoenix office.

Using the data above obtained by the interview process and the analysis of the log, 250 incidents times eight hours per average incident equals 2,000 hours involved in responding to emergencies away from the office.

Based on 1,675 productive hours per FTE per year, this translates to 1.2 FTE equivalent. Adding training, 20% of 1 FTE, the total requirement is approximately 1.4 FTE equivalent.

When calls are received, information is first logged in manually and then is input in the data base. Two incident reports are required to be completed at the time the call is received, one by the EPA Region IX and one by the department of Emergency Services. The incident log does not contain information about "incident field time spent" or "reason for not responding" to the emergency calls (see Exhibits 32, "Arizona Hazardous Material Incident Report Form," and Exhibit 33, "Phoenix IX Incident Notification Report Form").

Recommendations

We recommend the following:

- Eliminate one vacant Emergency Response Supervisor position
- Add a column on "time spent" on emergency call and reason for "no response" to the incident log
- Log emergency calls directly into the data base and discontinue manual logging
- Combine Arizona and EPA incident report forms into one, or negotiate the use of one or the other with the EPA
- Change the organizational reporting of the E.R. portion of the Unit (see Exhibit 34.1, Hazardous, Solid and Special Waste Section, Proposed Organizational Chart).

Benefits

The following benefits will be realized:

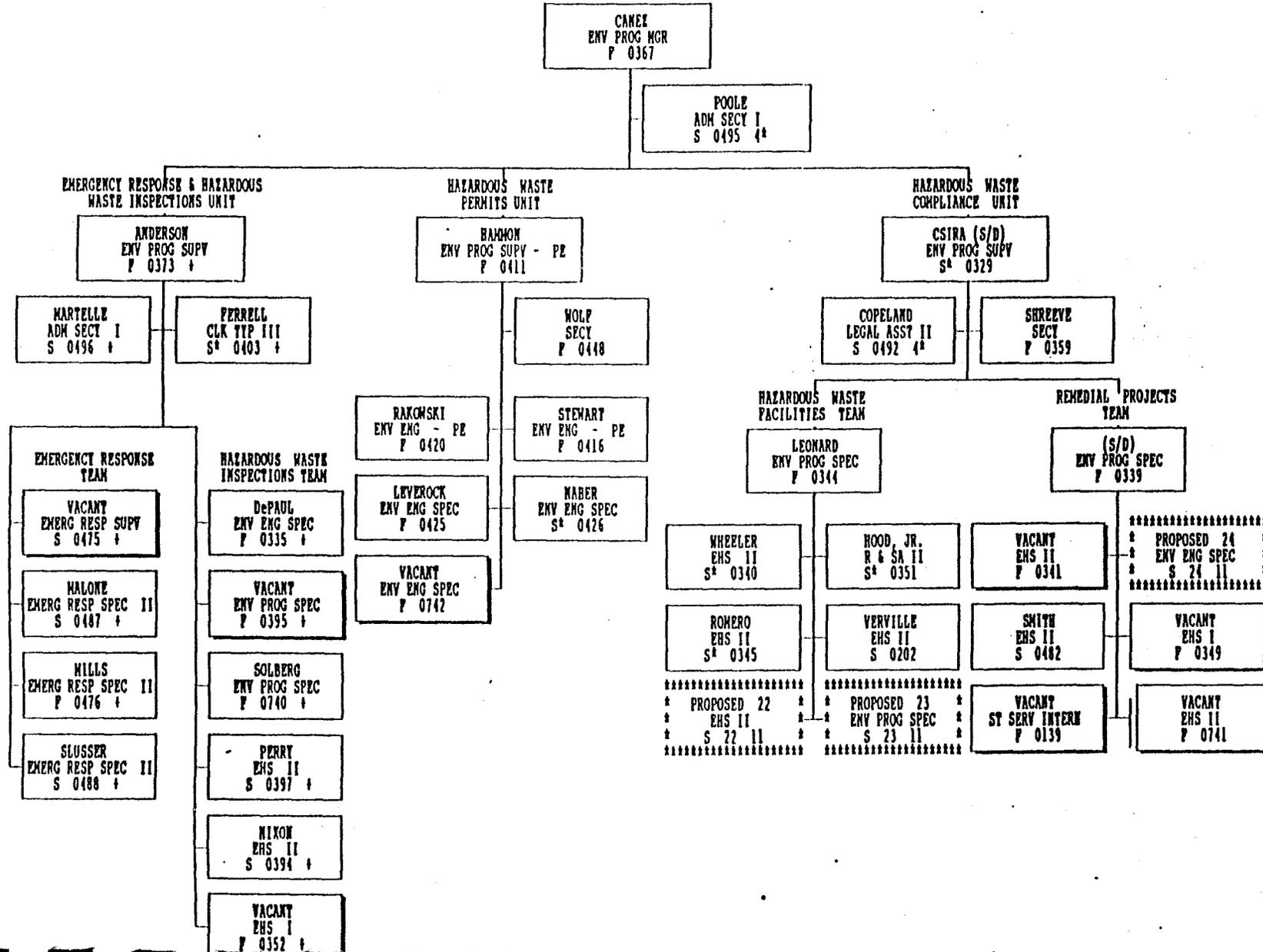
- Eliminate one vacant Emergency Response Unit Supervisor position for an avoidance of \$41,497 State funds
- Eliminate duplication of logging and form filling within the Emergency Response portion of the Unit.

Implementation

- Modify incident log per recommendations
- Combine EPA incident forms into one
- Prepare necessary personnel papers for the elimination of a position
- Time frame: Approximately 2 months.

DEQ - OFFICE OF WASTE PROGRAMS
HAZARDOUS & SOLID WASTE
JANUARY 01, 1992

DEQ - 80



HAZARDOUS WASTE INCIDENT PROCESS

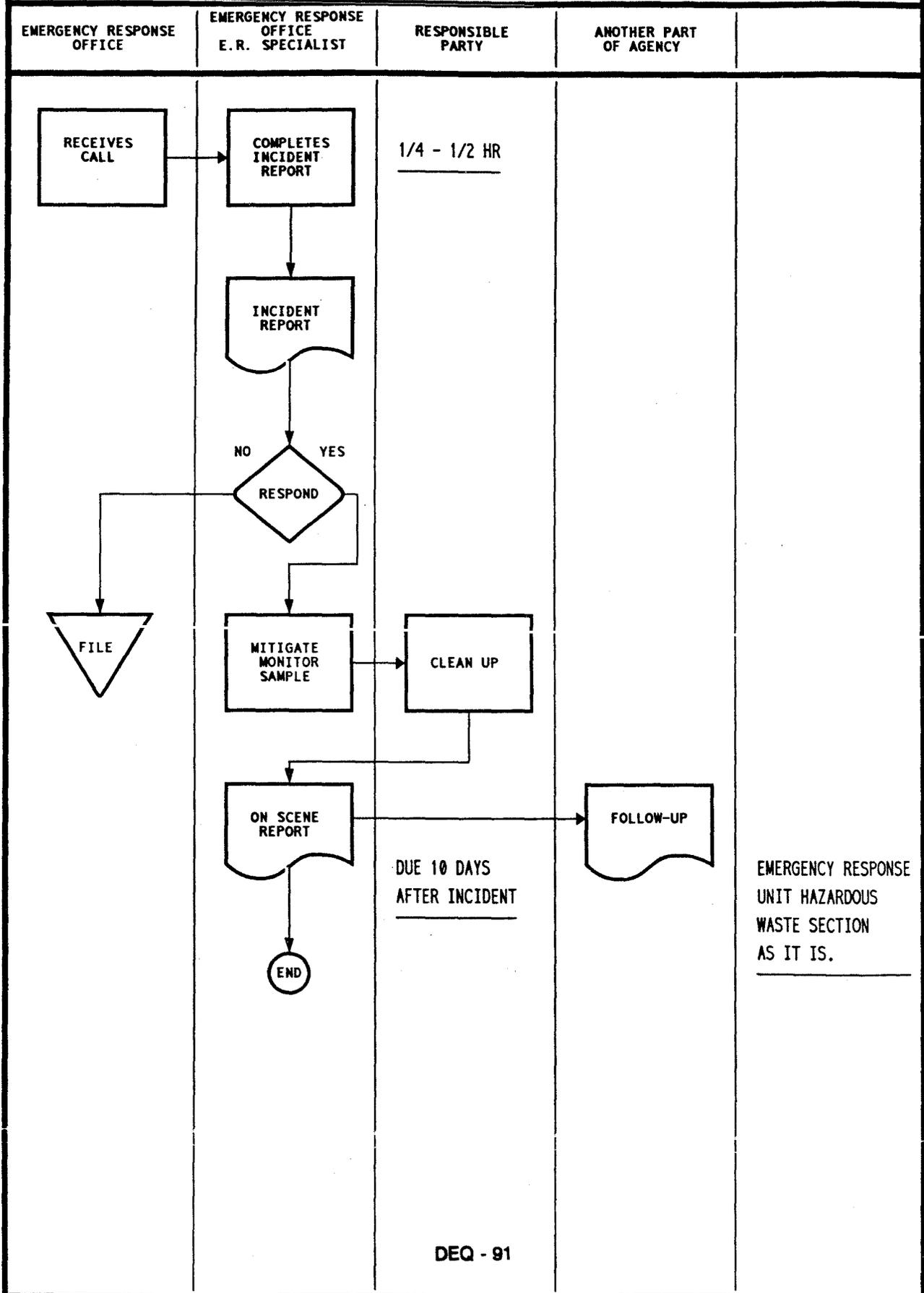


EXHIBIT 31

NUMBER	DATE	CNU RESPONSE	LOCATION	COUNTY	NAME (FACILITY)	MANAGEMENT	FACTOR	SAMPLES	CLEANUP	REFERENCE	CHENICAL(S)
91-007-D	01/15/1991	Yes	Holbrook	Navajo	Holbrook High school	County	95,	0	.	No	Lab Packs
91-013-B	01/16/1991	No	Hayden	Pinal	ASARCO/Ray Mine	Private	60,	0	Yes	Yes	Copper Sulfate
91-008-C	01/17/1991	Yes	Alamo Lake	Yavapai	Unknown	County	00,	1	No	No	Copper Sulfate
91-009-C	01/18/1991	Yes	Phx/3033 No. Central	Maricopa	DES Rehabilitation	State	50,	0	Yes	Yes	Mercury
91-010-C	01/19/1991	Yes	Phx/418 E. Thunderbird	Maricopa	Arizona Cleaners	Private	11,40	0	No	Yes	Perchloroethyl
91-011-C	01/19/1991	Yes	Phx/7905 No. 43 Ave.	Maricopa	Unknown	Private	99,	0	No	Yes	Oil (Used)
91-008-D	01/21/1991	Yes	Nogales	Santa Cruz	Unknown	County	12,31	1	No	No	Unknown
91-003-A	01/22/1991	No	Buckeye/183 & Camelback	Maricopa	APS	Private	94,	0	Yes	No	PCB
91-005-A	01/22/1991	No	Tucson/USAF Plant 44	Pima	Hughes Aircraft	Federal	50,	0	Yes	No	F006 Sludge
91-015-B	01/22/1991	Yes	Hwy 77, MP 162	Gila	J.B. Kelly	State	30,	0	Yes	No	Sulfuric Acid
91-002-A	01/22/1991	Yes	Tucson/1785 W. Prince	Pima	Unknown	Private	98,	0	No	No	Water
91-004-A	01/23/1991	Yes	Phx/1402 No. 24 Ave.	Maricopa	Churchill Trucking	Private	30,	0	Yes	No	Citric Acid
91-013-C	01/23/1991	Yes	Tonopah/I-10, MP 95.5	Maricopa	Cox Trucking Co.	State	71,	1	Yes	Yes	Petroleum Dist
91-012-C	01/23/1991	No	Prescott/Yavapai Ind. Res	Yavapai	Yavapai Indian Reservation	Tribal	99,	0	No	Yes	No HazMat
91-016-B	01/25/1991	Yes	Hwy 177, MP 147.2	Pinal	Bedrose, Victor	Private	11,	0	Yes	No	Sulfuric Acid
91-014-C	01/25/1991	Yes	Tempe/Warner & Hardy	Maricopa	Echo Trucking Co.	Private	30,	1	Yes	Yes	Diesel #2
91-017-B	01/26/1991	Yes	Phx/91 Ave & Camelback	Maricopa	Good Shephard Pest Control	City	71,	0	Yes	No	Dursban (1% sol)
91-009-D	01/26/1991	No	San Manuel	Pinal	Magma Copper Co.	Private	50,	0	Yes	No	Sulfuric Acid
91-006-A	01/30/1991	Yes	Phx/5105 W. Camelback	Maricopa	AM/PH Mini Mart	Private	70,	0	Yes	Yes	Gasoline (Unlea
91-018-B	01/31/1991	No	Phx/16220 No. 7th St.	Maricopa	Paradise Lake Apts.	Private	00,	0	Yes		Pesticides
91-015-C	01/31/1991	No	Phx/5325 W. Van Buren	Maricopa	Texaco	Private	50,	0	Yes	Yes	Diesel #2

DEQ-82

ARIZONA HAZARDOUS MATERIAL INCIDENT REPORT - 1/91

DELETE 2

A	AGENCY NAME ADEQ - ER	AGENCY INCIDENT NO. 91-084-D	AGENCY PHONE NO. () - 392-4064	ADES CONTROL NO.
B	INCIDENT DATE (MM) 10 (DD) 28 (M) 91	TIME NOTIFIED (2400 HR) 0700	TIME COMPLETED (2400 HR) 6:30 pm	DATE COMPLETED 10/28/91
C	INCIDENT ADDRESS/LOCATION 20 MI NE OF CHAYLON LAKE		CITY UNC	COUNTY NAVAJO ZIP

D	RESPONSIBLE PARTY NAME UNKNOWN	PHONE NO. () -	N.A.C. NO.
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E	WEATHER (Check best descriptor/s) <input checked="" type="checkbox"/> CLEAR <input type="checkbox"/> RAIN <input type="checkbox"/> SNOW <input type="checkbox"/> HAIL <input type="checkbox"/> ELEC. STORM <input type="checkbox"/> FOG <input type="checkbox"/> HIGH WIND <input type="checkbox"/> OTHER <input type="checkbox"/> UNKNOWN ESTIMATED TEMP 54 (Deg F)	PROPERTY USE (Use codes on reverse) PROPERTY USE 931 SURROUNDING AREA 931 PROPERTY MANAGEMENT <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> CITY <input type="checkbox"/> PRIVATE <input type="checkbox"/> UNKNOWN
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F	RELEASE FACTORS (Check best descriptor/s) <input checked="" type="checkbox"/> INTENTIONAL ACT <input type="checkbox"/> SUSPICIOUS ACT <input type="checkbox"/> FAILURE TO CONTROL HAZMAT <input type="checkbox"/> ABANDONED <input type="checkbox"/> MISUSE OF HAZMAT <input type="checkbox"/> MECHANICAL FAILURE <input type="checkbox"/> DESIGN CONSTRUCTION <input type="checkbox"/> INSTALLATION DEFICIENCY <input type="checkbox"/> OPERATIONAL DEFICIENCY <input type="checkbox"/> COLLISION/OVERTURN <input type="checkbox"/> NATURAL CONDITION <input checked="" type="checkbox"/> FIRE/EXPLOSION <input type="checkbox"/> NO RELEASE <input type="checkbox"/> OTHER <input type="checkbox"/> UNDETERMINED	TYPE OF EQUIP. INVOLVED <input type="checkbox"/> HEATING SYSTEMS <input type="checkbox"/> AIR CONDITIONING/REFRIG. <input type="checkbox"/> CHEM. PROCESSING EQUIP <input type="checkbox"/> WASTE RECOVERY EQUIP <input type="checkbox"/> HAZMAT TRANSFER EQUIP <input type="checkbox"/> VEHICULAR FUEL SYSTEM <input checked="" type="checkbox"/> NO EQUIP. INVOLVED <input type="checkbox"/> OTHER <input type="checkbox"/> UNDETERMINED	IMOBILE PROPERTY TYPE <input type="checkbox"/> PASSENGER VEH/ROAD <input type="checkbox"/> FREIGHT VEH/ROAD <input type="checkbox"/> RAIL TRANSPORT VEHICLE <input type="checkbox"/> WATER TRANS VESSEL <input type="checkbox"/> AIR TRANSPORT VESSEL <input type="checkbox"/> HEAVY EQUIP. INDUST/AGRI <input checked="" type="checkbox"/> NO MOBILE PROPERTY INVOLVED <input type="checkbox"/> OTHER <input type="checkbox"/> UNDETERMINED
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G	ACTIONS TAKEN (Check best descriptor/s) <input type="checkbox"/> RESCUE, REMOVE FROM HARM <input type="checkbox"/> EXTRICATION, DISENTANGLEMENT <input type="checkbox"/> EMERGENCY MEDICAL SERVICES <input type="checkbox"/> SEARCH <input type="checkbox"/> TRANSPORT <input type="checkbox"/> REMOVE HAZARD (NEUTRALIZE) <input type="checkbox"/> ID/ANALYSIS OF HAZMAT <input type="checkbox"/> EVACUATION <input checked="" type="checkbox"/> ESTABLISH SAFE AREA <input type="checkbox"/> MONITOR <input type="checkbox"/> DECON-PERSON/EQUIP <input type="checkbox"/> DECON-AREA (CLEANUP) <input checked="" type="checkbox"/> CONTAIN/CONTROL HAZMAT <input type="checkbox"/> CROWD CONTROL <input type="checkbox"/> TRAFFIC CONTROL <input checked="" type="checkbox"/> NOTIFY OTHER AGENCY <input type="checkbox"/> PROVIDE PUBLIC INFO <input checked="" type="checkbox"/> INVESTIGATE <input type="checkbox"/> SHUT DOWN SYSTEM <input type="checkbox"/> SECURE PROPERTY <input type="checkbox"/> REFER TO PROP. AUTHORITY <input type="checkbox"/> HAZMAT RESPONSE MATERIAL DETERMINED TO BE NONHAZARDOUS <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> OTHER
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H	CHEMICAL OR TRADE NAME (Print or type) MAGNESIUM METAL	DOT ID NO. 1418	DOT HAZARD CLASS 4	CAS NO 7439-95-4
	PHYSICAL STATE STORED 1 SOLID 2 LIQUID 3 GAS <input checked="" type="checkbox"/>	PHYSICAL STATE RELEASED 1 SOLID 2 LIQUID 3 GAS <input checked="" type="checkbox"/>	QUANTITY RELEASED 1) LBS. UNK 2) GAL 3) CU.FT.	TYPE OF ENVIRONMENTAL CONTAMINATION 1) AIR <input checked="" type="checkbox"/> 2) WATER 3) GROUND <input checked="" type="checkbox"/> 9) OTHER
	CONTAINER DESCRIPTION 1 FIXED 2 PORTABLE 3 MOBILE 1 INSULATED 2 PRESSURIZED 3 ARMORED <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	(USE CODES ON REVERSE) CONTAINER LEVEL OF CONTAINER MATERIAL CONTAINER TYPE <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CONTAINER CAPACITY 1) LBS. 2) GAL 3) CU.FT.	(USE CODES ON REVERSE) EXTENT OF RELEASE 7

H	CHEMICAL OR TRADE NAME (Print or type) NA	DOT ID NO.	DOT HAZARD CLASS	CAS NO
	PHYSICAL STATE STORED 1 SOLID 2 LIQUID 3 GAS	PHYSICAL STATE RELEASED 1 SOLID 2 LIQUID 3 GAS	QUANTITY RELEASED 1) LBS. 2) GAL 3) CU.FT.	TYPE OF ENVIRONMENTAL CONTAMINATION 1) AIR 2) WATER 3) GROUND 9) OTHER
	CONTAINER DESCRIPTION 1 FIXED 2 PORTABLE 3 MOBILE 1 INSULATED 2 PRESSURIZED 3 ARMORED	(USE CODES ON REVERSE) CONTAINER LEVEL OF CONTAINER MATERIAL CONTAINER TYPE	CONTAINER CAPACITY 1) LBS. 2) GAL 3) CU.FT.	(USE CODES ON REVERSE) EXTENT OF RELEASE

I MORE THAN 2 SUBSTANCES INVOLVED? YES NO (LIST ADDITIONAL INFORMATION ON REVERSE SIDE)

J	HAZMAT IDENTIFICATION SOURCES (Check best descriptor/s) PERSONNEL <input type="checkbox"/> ON-SITE FIRE SERVICES <input checked="" type="checkbox"/> OFF-SITE FIRE SERVICES <input type="checkbox"/> ON-SITE NON-FIRE SERVICES <input type="checkbox"/> OFF-SITE NON-FIRE SERVICES <input type="checkbox"/> CHEMIST <input type="checkbox"/> TOX CENTER <input type="checkbox"/> CHEMTREC <input type="checkbox"/> OTHER REFERENCE MATERIAL <input type="checkbox"/> DOT MANUAL <input type="checkbox"/> MSDS <input type="checkbox"/> PLACARDS/SIGNS <input type="checkbox"/> PRIVATE INFO SOURCE <input type="checkbox"/> COMPUTER SOFTWARE <input type="checkbox"/> SHIPPING PAPERS <input checked="" type="checkbox"/> NO REFERENCE MATERIAL USED <input type="checkbox"/> OTHER	HAZMAT CASUALTIES No. of Contaminated No. of Injuries No. of Fatalities RESPONDING AGENCY 1, 0, 0 OTHERS 1, 0, 0
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K	VEHICLE MAKE/YEAR NA	STATE	VEHICLE LICENSE NUMBER	VEHICLE ID NO. (VIN)	ICC/DOT NO.	COMPANY NAME
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L	REPORTING OFFICER NAME/ID NO. (Print or type) Mills, S DEQY	DATE 10-29-31	ADDITIONAL COMMENTS ON BACK YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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REGION IX INCIDENT NOTIFICATION REPORT

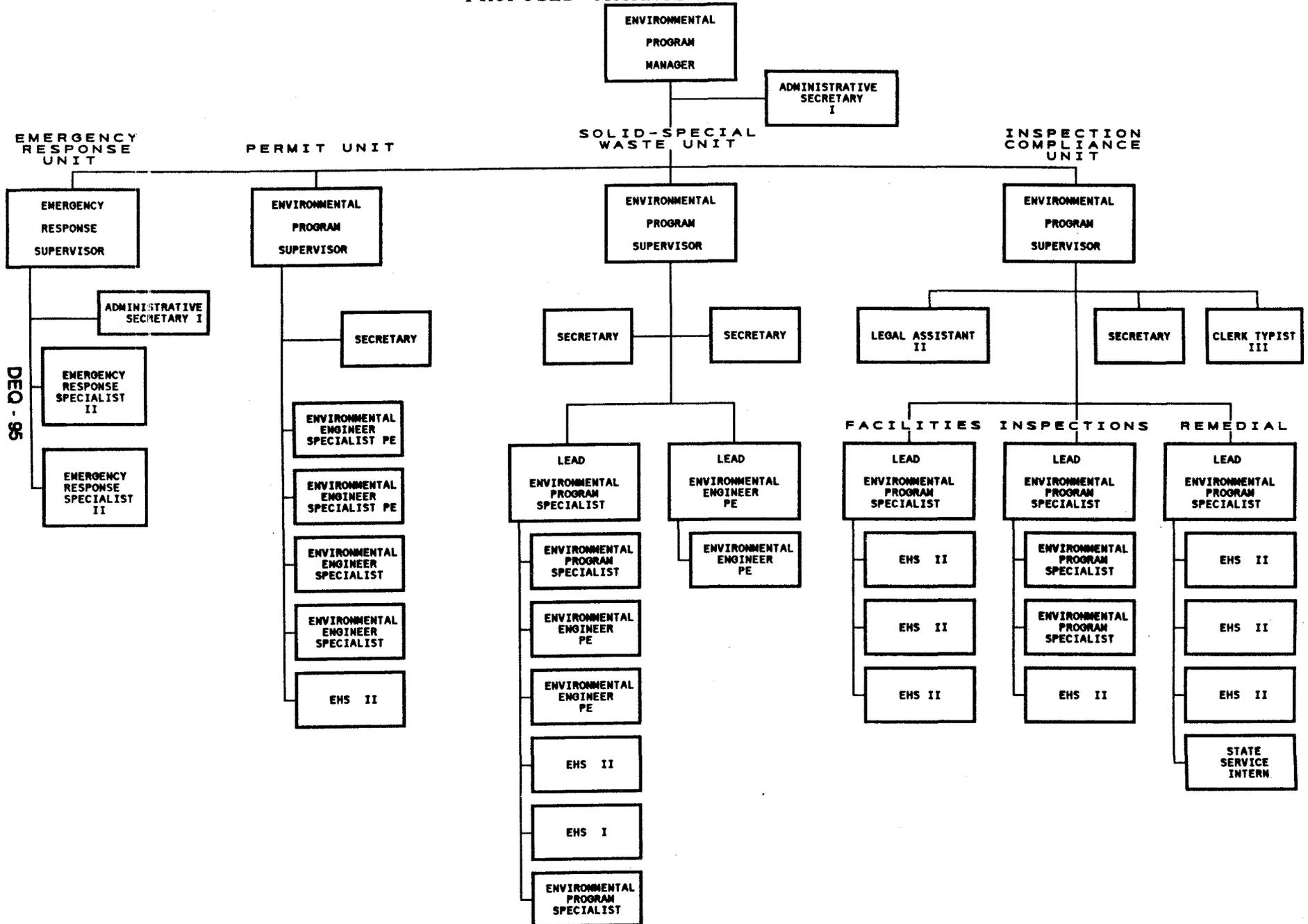
EXHIBIT 33

1. Case No.: 91-001-1

2. Reported: (mm/dd/yy) 10-28-91		3. Time: 0430		4. Recorded By: Mills																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Material	42. Material Type:	CHRIS Code	UNV DOT No.	CAS No.	Quantity Released	Units (Circle 1)	>RO	<input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> H = Hazardous <input type="checkbox"/> X = Other <input type="checkbox"/> O = Oil Material							Material Type (Name): 43. (ENGINE Block) MAGNESIUM (Mg)										44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	115.	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.	129.	130.	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	156.	157.	158.	159.	160.	161.	162.	163.	164.	165.	166.	167.	168.	169.	170.	171.	172.	173.	174.	175.	176.	177.	178.	179.	180.	181.	182.	183.	184.	185.	186.	187.	188.	189.	190.	191.	192.	193.	194.	195.	196.	197.	198.	199.	200.	201.	202.	203.	204.	205.	206.	207.	208.	209.	210.	211.	212.	213.	214.	215.	216.	217.	218.	219.	220.	221.	222.	223.	224.	225.	226.	227.	228.	229.	230.	231.	232.	233.	234.	235.	236.	237.	238.	239.	240.	241.	242.	243.	244.	245.	246.	247.	248.	249.	250.	251.	252.	253.	254.	255.	256.	257.	258.	259.	260.	261.	262.	263.	264.	265.	266.	267.	268.	269.	270.	271.	272.	273.	274.	275.	276.	277.	278.	279.	280.	281.	282.	283.	284.	285.	286.	287.	288.	289.	290.	291.	292.	293.	294.	295.	296.	297.	298.	299.	300.	301.	302.	303.	304.	305.	306.	307.	308.	309.	310.	311.	312.	313.	314.	315.	316.	317.	318.	319.	320.	321.	322.	323.	324.	325.	326.	327.	328.	329.	330.	331.	332.	333.	334.	335.	336.	337.	338.	339.	340.	341.	342.	343.	344.	345.	346.	347.	348.	349.	350.	351.	352.	353.	354.	355.	356.	357.	358.	359.	360.	361.	362.	363.	364.	365.	366.	367.	368.	369.	370.	371.	372.	373.	374.	375.	376.	377.	378.	379.	380.	381.	382.	383.	384.	385.	386.	387.	388.	389.	390.	391.	392.	393.	394.	395.	396.	397.	398.	399.	400.	401.	402.	403.	404.	405.	406.	407.	408.	409.	410.	411.	412.	413.	414.	415.	416.	417.	418.	419.	420.	421.	422.	423.	424.	425.	426.	427.	428.	429.	430.	431.	432.	433.	434.	435.	436.	437.	438.	439.	440.	441.	442.	443.	444.	445.	446.	447.	448.	449.	450.	451.	452.	453.	454.	455.	456.	457.	458.	459.	460.	461.	462.	463.	464.	465.	466.	467.	468.	469.	470.	471.	472.	473.	474.	475.	476.	477.	478.	479.	480.	481.	482.	483.	484.	485.	486.	487.	488.	489.	490.	491.	492.	493.	494.	495.	496.	497.	498.	499.	500.	501.	502.	503.	504.	505.	506.	507.	508.	509.	510.	511.	512.	513.	514.	515.	516.	517.	518.	519.	520.	521.	522.	523.	524.	525.	526.	527.	528.	529.	530.	531.	532.	533.	534.	535.	536.	537.	538.	539.	540.	541.	542.	543.	544.	545.	546.	547.	548.	549.	550.	551.	552.	553.	554.	555.	556.	557.	558.	559.	560.	561.	562.	563.	564.	565.	566.	567.	568.	569.	570.	571.	572.	573.	574.	575.	576.	577.	578.	579.	580.	581.	582.	583.	584.	585.	586.	587.	588.	589.	590.	591.	592.	593.	594.	595.	596.	597.	598.	599.	600.	601.	602.	603.	604.	605.	606.	607.	608.	609.	610.	611.	612.	613.	614.	615.	616.	617.	618.	619.	620.	621.	622.	623.	624.	625.	626.	627.	628.	629.	630.	631.	632.	633.	634.	635.	636.	637.	638.	639.	640.	641.	642.	643.	644.	645.	646.	647.	648.	649.	650.	651.	652.	653.	654.	655.	656.	657.	658.	659.	660.	661.	662.	663.	664.	665.	666.	667.	668.	669.	670.	671.	672.	673.	674.	675.	676.	677.	678.	679.	680.	681.	682.	683.	684.	685.	686.	687.	688.	689.	690.	691.	692.	693.	694.	695.	696.	697.	698.	699.	700.	701.	702.	703.	704.	705.	706.	707.	708.	709.	710.	711.	712.	713.	714.	715.	716.	717.	718.	719.	720.	721.	722.	723.	724.	725.	726.	727.	728.	729.	730.	731.	732.	733.	734.	735.	736.	737.	738.	739.	740.	741.	742.	743.	744.	745.	746.	747.	748.	749.	750.	751.	752.	753.	754.	755.	756.	757.	758.	759.	760.	761.	762.	763.	764.	765.	766.	767.	768.	769.	770.	771.	772.	773.	774.	775.	776.	777.	778.	779.	780.	781.	782.	783.	784.	785.	786.	787.	788.	789.	790.	791.	792.	793.	794.	795.	796.	797.	798.	799.	800.	801.	802.	803.	804.	805.	806.	807.	808.	809.	810.	811.	812.	813.	814.	815.	816.	817.	818.	819.	820.	821.	822.	823.	824.	825.	826.	827.	828.	829.	830.	831.	832.	833.	834.	835.	836.	837.	838.	839.	840.	841.	842.	843.	844.	845.	846.	847.	848.	849.	850.	851.	852.	853.	854.	855.	856.	857.	858.	859.	860.	861.	862.	863.	864.	865.	866.	867.	868.	869.	870.	871.	872.	873.	874.	875.	876.	877.	878.	879.	880.	881.	882.	883.	884.	885.	886.	887.	888.	889.	890.	891.	892.	893.	894.	895.	896.	897.	898.	899.	900.	901.	902.	903.	904.	905.	906.	907.	908.	909.	910.	911.	912.	913.	914.	915.	916.	917.	918.	919.	920.	921.	922.	923.	924.	925.	926.	927.	928.	929.	930.	931.	932.	933.	934.	935.	936.	937.	938.	939.	940.	941.	942.	943.	944.	945.	946.	947.	948.	949.	950.	951.	952.	953.	954.	955.	956.	957.	958.	959.	960.	961.	962.	963.	964.	965.	966.	967.	968.	969.	970.	971.	972.	973.	974.	975.	976.	977.	978.	979.	980.	981.	982.	983.	984.	985.	986.	987.	988.	989.	990.	991.	992.	993.	994.	995.	996.	997.	998.	999.	1000.		
41. Material	42. Material Type:	CHRIS Code	UNV DOT No.	CAS No.	Quantity Released	Units (Circle 1)	>RO																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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HAZARDOUS, SOLID AND SPECIAL WASTE SECTIONS COMBINED PROPOSED ORGANIZATION CHART

EXHIBIT 34.1



TRANSFER OF INSPECTIONS FUNCTIONS

Current Situation

The inspections part of this Unit performs approximately 250 inspections per year. It is currently staffed by a team of six Inspectors (one is vacant and one is proposed), a Clerk Typist and an Environmental Program Supervisor who also supervises the Emergency Response Team (see Exhibit 29, Hazardous and solid Waste Section, Current Organizational Chart).

The objective of the Inspection Team is to identify, contain (stop) and initiate disposal of violations by both verbal and written communications. Hazardous waste inspections are done to prevent and abate improper management of hazardous waste.

They are responsible for routine inspections involving Treatment Storage and Disposal facilities (TSD), Large Permitted Hazardous Waste Facilities, Large Quantity Generators (LQG) of Hazardous Waste and for inspections originating from complaints.

Each inspection results in the production of a case report and a warning letter (see Exhibit 35, Inspection Case Development Process, Emergency Response Unit, Flow Chart). These inspections are all handled out of the Phoenix office and the case reports are mailed to the Compliance Unit for further review and action. Inspectors only inspect 50-60% of LQGs and Complaints, mainly the known violators.

Inspections may result in administrative enforcement action, civil complaints or criminal referrals.

Impact

The current process (see Exhibit 35, Inspection Case Development Process, Emergency Response Unit, Flow Chart) shows that it takes up to six months to prioritize complaints, primarily because the Inspectors prioritize rather than the Unit Supervisor.

Although complaint calls are followed-up or received, more complaints could be responded to if there was enough time available. Also, complaints and LQG's are prioritized by the Specialists and not by the Unit Supervisor.

The process flow chart (see Exhibit 35, Inspection Case Development Process, Emergency Response Unit, Flow Chart) indicates that the Inspections Unit gives themselves a 45-day period to complete the case report that goes to both the Responsible Party (R.P.) and the Compliance Unit.

The desirability of homogeneity between Inspections and Compliance is an important factor. Inspections produces the violations case reports and Compliance enforces them.

- Inspections initiates the enforcement action
- R.P. has to respond to both Inspections and Compliance and is not always certain who they are dealing with
- Inspection Unit reviews the R.P.'s response prior to sending it to Compliance who reviews it again
- If the R.P. responds via the phone, Inspections advises and Compliance interprets, which can be confusing to the R.P.
- Recently Compliance has initiated a change in their procedures, prioritizing case reports from Inspections which will require more work of Inspections.

The average scenario for an inspector is one day in the field and four days in the office writing case reports even though a complex complaint requires only six to seven hours to complete.

According to our interviews and analysis of the inspection log (see Exhibit 36, Inspection Log, Statistical Report) approximately 50% of the inspections are complaint in origin and 50% are routinely scheduled generators and TSD's. Approximately 70% of the inspections occur within a two to three hour drive of the Phoenix office. Complex complaints require six to seven hours to complete case reports and complex LQG's require about 13-14 hours.

- An average complaint might require two to three hours of inspection and five to six hours of driving plus 3.5 hours of writing a case report totalling 11.5 hours
- An average LQG might require two to three of hours inspection plus five to six hours of driving plus seven hours writing a case report totalling 15 hours

- Therefore, an average inspection might require two to three hours inspection plus five to six hours of driving plus 5.25 hours of writing a case report totaling 13.25 hours per inspection
- 13.25 hours per average inspection, times 250 inspections, equals 3,312 hours per year; divided by 1,675 employee productive hours equals 1.97 FTEs.

This calculation assumes the flow chart time frames as they currently exist (see Exhibit 35, Inspection Case Development Process, Emergency Response Unit, Flow Chart).

Recommendations

We recommend the following:

- Environmental Program Supervisor of the Unit prioritize both complaints and routine inspection targets
- Inspection portion of the Unit shorten the 45 day period to 10 days to respond to the R.P. with the case report by boiler plating some of the components of the case report
- Establish and implement man-hour standards for each monitoring inspection step in the process
- Combine the Inspection portion of this Unit, which includes the Clerk Typist III position, with the Compliance Unit, but maintain its integrity (see Exhibit 34.1, Hazardous, Solid and Special Waste Section, Proposed Organizational Chart). Establish a Lead position by reclassifying the Environmental Program Supervisor to a lead position, and bringing in two additional Environmental Program Specialist positions and one EHS II position from Hazardous Waste, Inspections (savings of \$8,862 from re-classifying)
- Eliminate three Inspection positions (one vacant Environmental Program Specialist, one filled EHS II and one vacant EHS I).

Benefits

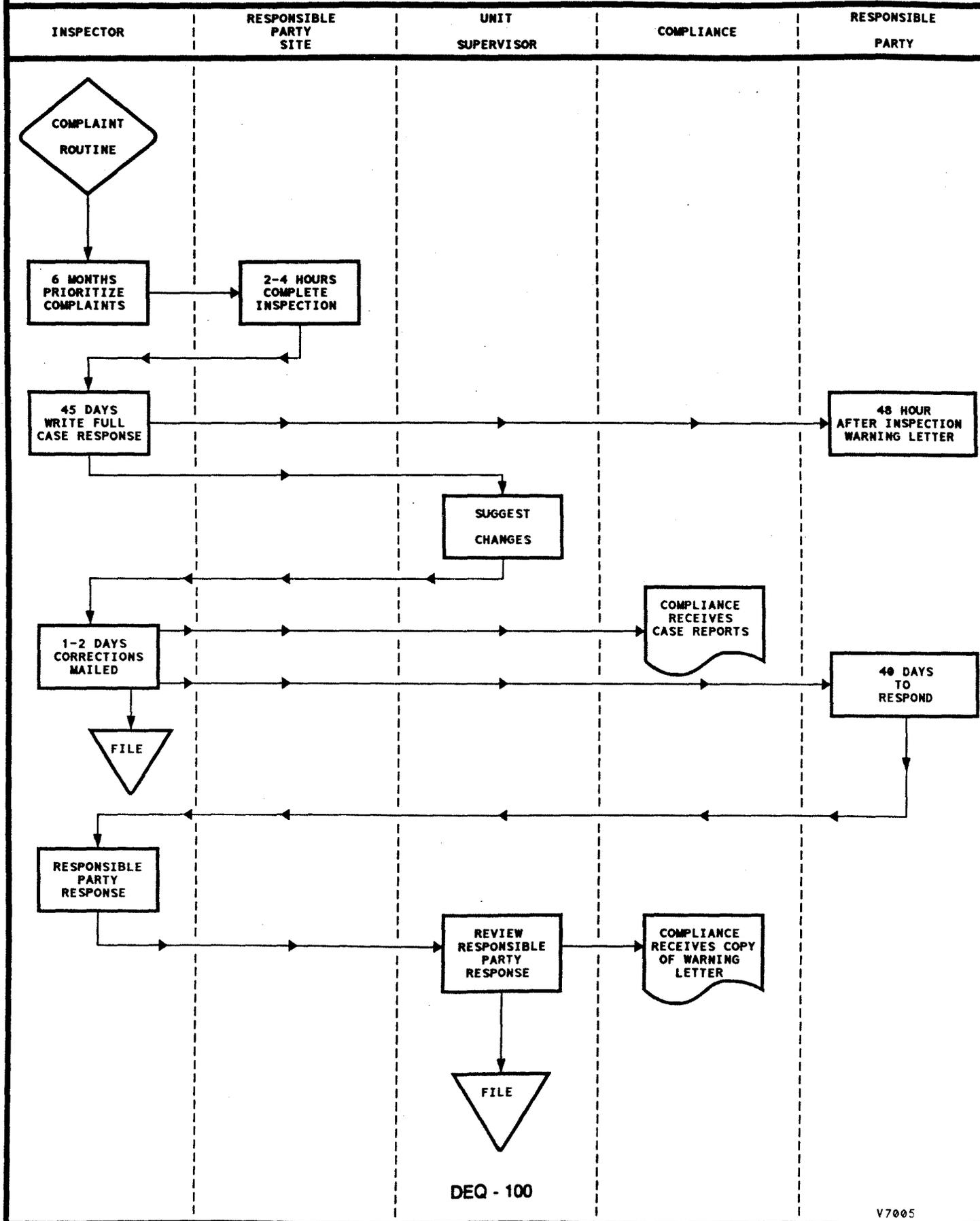
- The Supervisory prioritizing of complaints, target inspections and scheduling will put the Supervisor in touch with a key management priority that plays a role in number of annual inspections performed
- Shortening the case report completion deadline is another management factor in number of annual inspections made
- Shortening the case report by 25% (time involved) translates to 828 man hours, i.e. 828 hours divided by 13.25 hours per average inspection equals 62 more inspections annually or more time in field and less time in the office
- Implementing standards of performance and concentrating on these kinds of management issues will result in more annual inspections
 - up to 500 inspections per year with four FTEs
 - up to an additional 60 inspections through streamlining process
- Combining Inspection and Compliance without interfering with the integrity of what they do will cause minimum disturbance, maximize communication and work activity linkage, and will centralize decision making
- Obtain cost savings of \$39,559 (filled EHS II Grade 19) plus \$8,862 from re-classifying; and cost avoidance of vacant EPS Grade 20 at \$36,506 and vacant EHS I Grade 17 at \$26,548
- Total savings \$111,475 – State funds \$39,559, Federal funds \$71,916.

Implementation

- Develop performance guidelines and standards
- Time frame: Approximately 2 months.

INSPECTION CASE DEVELOPMENT PROCESS EMERGENCY RESPONSE INSPECTION UNIT HAZARDOUS WASTE DIVISION - CURRENT

EXHIBIT 35



COMPLIANCE UNIT

Current Situation

The Hazardous Waste Compliance Unit in the Hazardous Waste Section interprets and enforces statutes as they apply to case reports received from Inspections. Case reports generated for Compliance are 200-300 in number each year. At the present time Compliance is working with 260 cases.

Compliance issues two letters, one requesting an assistance meeting and one following the meeting giving the Responsible Party (RP) about 90 days to come into Compliance. At the end of 90 days if the RP has not come into Compliance then a legal process is initiated that can result in either a Compliance Order or a Civil Referral.

The Hazardous Waste Compliance Unit is staffed by an Environmental Program Supervisor, a Legal Assistant II, a Secretary, two Team Leaders (one of which is vacant), five EHS II positions (one of which is vacant), one R&SA II, one vacant EHS I, one vacant Service Intern which is only occupied approximately three months a year generally by a college student, and four proposed positions. The personnel are referred to as Compliance Officers since they all perform similar duties (See Exhibit 29, Hazardous and Solid Waste Section, Current Organizational Chart).

Impact

As many as 25% of the cases i.e., 65 of the 260 cases, will result in initiation of the legal process each year of which few will go all the way through the legal process. So far none have gone all the way through the legal process. Most of these will end up being negotiated prior to completion. According to our interviews the Compliance Order requires the most man-hours to complete, up to 211 hours. The Civil Referrals require about 127 man-hours. To be conservative, we assume all the legal cases to be Compliance Orders to calculate requirements.

Based on our interviews, only 10% of the legal cases would have the potential to go all the way through the legal process requiring 211 man-hours. The other 90% that will be negotiated will require about 100 man-hours or less. Therefore:

- 90% of 65 cases @ 100 hrs. each = 5,850 hours

- 10% of 65 cases @ 211 hrs. each = 1,376 hours
- Total man-hours required = 7,226 hours
- This equates to about 4.3 FTEs.

Based on the interviews, the estimated man-hours for the non-legal cases, which are approximately 195 (65 of the 260 total are legal cases), is about 30 man-hours on average per case. Some may take a very long time depending upon the complexity of the case. Therefore:

- 30 hrs times 195 = 5,850 hours
- This equates to about 3.5 FTEs.

Hence the total required FTEs for this Unit comes out to be $4.3 + 3.5 = 7.8$ FTEs.

Recommendations

- Eliminate five positions of which two are proposed (one now shown as EHS II, Grade 19) Environmental Engineer Specialists, two are proposed EHS II positions (one now shown as EPS, Grade 20), and one is a vacant EHS I position (see Exhibit 29, Hazardous and Solid Waste Section, Current Organization Chart). The recommended chart is shown in Exhibit 34.1, Hazardous, Solid and Special Waste Section, Proposed Organizational Chart.

Benefits

- Cost avoidance of \$161,806 to the Compliance Unit – State funds \$26,548 and Federal funds \$135,257

Implementation

- Prepare necessary personnel documents
- Time frame: Approximately 2 months.

SOLID WASTE UNIT

Current Situation

At the present time the Solid Waste Unit has responsibility statewide for Landfill inspections, Plan and Review of new landfill proposals, Plan and Review of nearly 80% of existing landfills (since many will not meet new regulations), the used tire program, used batteries, soils affected by underground storage tanks, and the composting program associated with the use of sludge from waste-water Treatment Facilities from Phoenix, Tucson, Yuma and Nogales as well as sludge entering Arizona from California.

The Solid Waste Unit is managed by an Environmental Program Supervisor, a Secretary, two Environmental Program Specialists, an Environmental Engineer (P.E.), and two EHS II. In addition to this they have four vacant positions (see Exhibit 37, Solid and Special Waste Units, Current Organizational Chart).

Impact

The Solid Waste Unit is similar to the Hazardous Waste Section except that Inspections, Compliance and Permitting (or Plan and Review), is all carried out in substantially less detail within the Unit whereas the Hazardous Waste Section has detailed Inspections, Compliance and Permitting Units.

State wide there are approximately 100 landfills that require annual Solid Waste inspection. They are required to handle different wastes in specific ways. Batteries and tires are the main examples. Inspection also includes: evaluation of facility training of employees; fire control; methane gas control; and general maintenance.

Solid waste inspections will also have to cover between 200-300 private landfills (not open to the public), so that the approximately 80% (based on our interviews) not in compliance can be brought before Plan and Review. In addition to the above activity, solid waste inspection of some closures is required on an annual basis since they too must undergo plan and review approval. At the present time this activity is being handled by the EHS II position located in Flagstaff for the northern part of the state and by an EHS II position in Phoenix. The directories (see Exhibit 38, Directory, Municipal Landfills, and Exhibit 39, Directory, Closed Landfills) detail Arizona's landfills and landfill closures.

In addition to 80 public landfills and 200 - 300 private landfills that require attention from plan review, 30 new requests are being processed and the Environmental Engineer P.E. is currently spending 85% of his time working with these. Plan review of existing public and private landfills is not currently receiving attention. The other Environmental Engineer P.E. position is vacant.

The tire program provides compliance guidelines but within the next six months will be promulgating rules in response to recent legislation. There are approximately twenty used tire sites statewide, including one in each county which is county operated, plus several private sites. One Environmental Program Specialist inspects, approves or rejects sites, and locates illegal dumps.

Each year county contractors bid for the right to provide the collection sites for tires. In addition to the tire program this position registers collection locations for used batteries. In another program, temporary sites are registered to take contaminated soils, primarily from leaking underground storage tank locations where soils can be de-toxified. The position handling this program is an Environmental Program Specialist.

The Compost Program deals primarily with the composting of sludge and its use on agricultural lands, approximately 100,000 acres of cropland statewide. The number of operators handling composted sludge is seven or eight. This program is handled primarily by the EHS II (landfill inspections) position in Flagstaff and would also be handled by the EHS II landfill inspections position in Phoenix except that position according to our interviews is working on legislative package duties. Although we could see that inspections of landfills needs to occur, the position was involved in other activity.

Recommendations

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Eliminating three vacant positions (one EHS I Grade 17, and two EHS II Grade 19)
- Combining the Solid Waste Unit with Special Waste Unit, eliminating the section by moving the combined unit to the Hazardous Waste Section
- Eliminating one Section Program Manager and a Secretary, leaving one Environmental Program Supervisor over the combined unit. Additionally, reclassify one Environmental

Program Supervisor to a lead position over the existing Solid Waste program (see Exhibit 34.1, Hazardous, Solid and Special Waste Section, Proposed Organizational Chart).

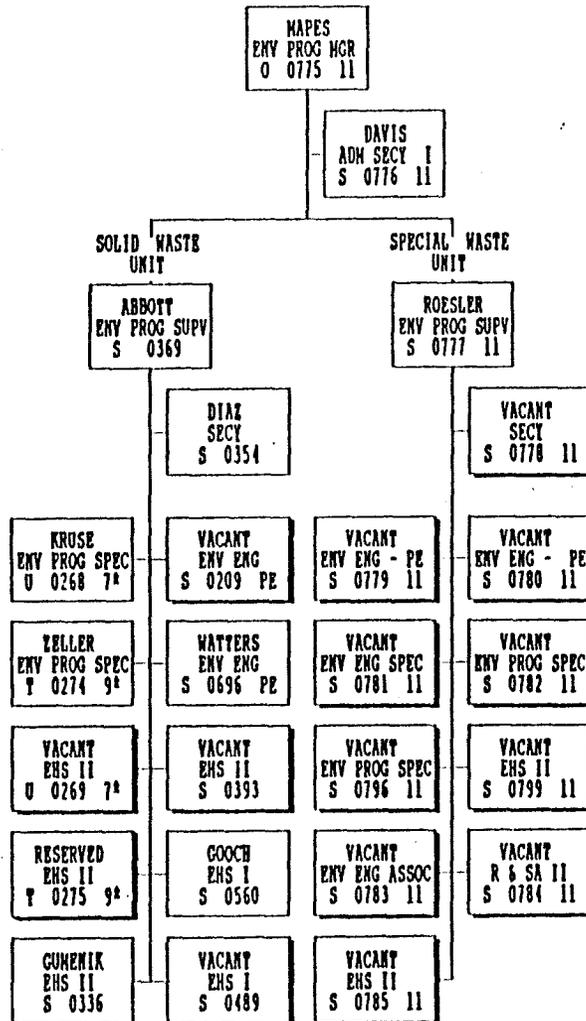
Benefits

- Solid Waste is already made up of Special Waste programs, therefore if Special Waste Unit remains separate, two units will unnecessarily exist, since Solid Waste already handles special type waste programs. Two separate units will result in a duplication of structure
- Combining the Solid and Special Waste Units will provide a Unit already in operation under a single supervisor
- Down grade, one Supervisor to a Lead position with a savings of \$8,862
- Cost avoidance of \$88,786
- Cost reduction of $\$71,099 + \$8,862 = \$79,961$
- Total savings of $\$168,755 - \text{State funds } \$137,640, \text{ Other funds } \$31,115$

Implementation

- Prepare necessary personnel papers to eliminate and re-classify positions
- Time frame: Approximately 2 months.

DEQ - OFFICE OF WASTE PROGRAMS
 SOLID & SPECIAL WASTE SECTION
 JANUARY 01, 1992



DEQ - 107

DIRECTORY OF ARIZONA
MUNICIPAL SOLID WASTE LANDFILLS (MSWLF),
RUBBISH LANDFILLS (RLF)
&
PRIVATE SOLID WASTE LANDFILLS (PSWLF)

NOVEMBER, 1991

PREPARED BY:

THE
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE PROGRAMS
SOLID WASTE UNIT
2005 NORTH CENTRAL AVENUE, G-200
PHOENIX, ARIZONA 85004
(602) 257-2155

FACILITY NAME, TYPE AND COUNTY	OPERATOR'S NAME ADDRESS AND PHONE NUMBER	LAND OWNER'S NAME, ADDRESS AND PHONE NUMBER	2 OF 2 PAGES ION, TOWNSHIP, RANGE, SECTION, QUARTER SECTIONS
ALAMITO GEN. STATION PSWLF APACHE	ALAMITO COMPANY P.O. BOX 2222 SPRINGERVILLE 85938	ALAMITO COMPANY P.O. BOX 2222 SPRINGERVILLE 85938	9 MILES NORTH OF SPRINGERVILLE ON AZ. 666. 10 MILES EAST TO SITE. T 11N, R 29E, Sec. 36 1/4: NW SW SE
APACHE COUNTY MSWLF APACHE	APACHE COUNTY P.O. BOX 238 ST. JOHNS 85936 (602) 337-4369	APACHE COUNTY P.O. BOX 238 ST. JOHNS 85936 (602) 337-4369	4.5 MILES NE OF ST. JOHNS OFF OF HWY 61 T 12N, R 29E, Sec. 18 1/4:
SRP CORONADO G. STAT. RLF APACHE	SALT RIVER PROJECT P.O. BOX 1018 ST. JOHNS 85936	SALT RIVER PROJECT P.O. BOX 1018 ST. JOHNS 85936	7 MILES NE OF ST. JOHNS T 13N, R 29E, Sec. 4 1/4: NW NW
APACHE ELECTRIC PSWLF COCHISE	AZ. ELECTRIC POWER CORP. P.O. BOX 676 BENSON, AZ 85602	AZ. ELECTRIC POWER CORP. P.O. BOX 676 BENSON, AZ 85602	1 MILE SOUTH OF COCHISE ON AZ. 666 T 24E, R 16S, Sec. 10 1/4: NE NE NE
BENSON MSWLF COCHISE	TOWN OF BENSON DRAWER AG BENSON, AZ 85602 (602) 586-2245	TOWN OF BENSON DRAWER AG BENSON, AZ 85602 (602) 586-2245	.3 MILES NORTH OF I-10 ON OCOTILLO ROAD, EAST .5 MILES TO T 17S, R 20E, Sec. 03 1/4: SE NW SE
BISBEE MSWLF COCHISE	CITY OF BISBEE 118 ARIZONA STREET BISBEE, AZ 85603 (602) 432-3312	PHELPS-DODGE CORPORATION P.O. BOX DRAWER EE DOUGLAS, AZ 85607 (602) 364-2441	4.3 MI. SOUTH OF U.S. 80 ON WARREN ROAD, TURN EAST ON SWANS T 24S, R 24E, Sec. 01 1/4: SW SW SW
DOUGLAS (NEW) MSWLF COCHISE	CITY OF DOUGLAS 425 TENTH STREET DOUGLAS, AZ 85607 (602) 364-7501	PHELPS-DODGE CORPORATION P.O. DRAWER EE DOUGLAS, AZ 85607 (602) 364-2441	.5 MILES WEST OF PAN AMERICAN AVENUE ON WEST NINTH STREET. T 24S, R 27E, Sec. 14 1/4: NE SE NE
ELFRIDA MSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603 (602) 432-5471	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603 (602) 432-5471	.4 MILES NORTH OF MILE POST #26 ON U.S. 666, EAST .5 MILES TO T 20S, R 26E, Sec. 10 1/4: NE NE NW
HUACHUCA CITY MSWLF COCHISE	HUACHUCA CITY P.O. BOX 4438 HUACHUCA CITY 85616 (602) 456-1354	AZ. STATE LAND DEPARTMENT 1624 WEST ADAMS PHOENIX, AZ 85007	.1 MILE EAST OF AZ. 90 ON SCHOOL DRIVE, NORTH .3 MILES TO SITE. T 21S, R 20E, Sec. 05 1/4: SW NE
USAG FORT HUACHUCA MSWLF COCHISE	ASGN - DEN - B FORT HUACHUCA 85613		T , R , Sec.

DEQ - 109

DIRECTORY OF ARIZONA

EXHIBIT 39

1 OF 3 PAGES

**CLOSED SOLID WASTE LANDFILLS (CSWLF)
AND
CLOSED SOLID WASTE DUMPS (CSWOD)**

NOVEMBER, 1991

PREPARED BY:

**THE
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE PROGRAMS
SOLID WASTE UNIT
2005 NORTH CENTRAL AVENUE, G-200
PHOENIX, ARIZONA 85004
(602) 257-2155**

REQ - 110

FACILITY NAME, TYPE AND COUNTY	OPERATOR'S NAME ADDRESS AND PHONE NUMBER	LAND OWNER'S NAME, ADDRESS AND PHONE NUMBER	IN, TOWNSHIP, RANGE, SECTION, QUARTER SECTIONS
ALPINE CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	USFS-APACHE SITGREAVES P.O. BOX 640 SPRINGERVILLE 85938	5.2 MILES WEST OF U.S. 666 ON U.S. 280. T 05N, R 31E, Sec. 1/4:
CHAMBERS CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	JONES RAY CO. 1113 EAST MANHATTON DRIVE TEMPE, AZ 85282	SOUTH OF I-40 AT CHAMBERS, SOUTHEAST AT DIRT ROAD .4 MILES T 21N, R 27E, Sec. 25 1/4: SW NE SE
CONCHO CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	AZ. STATE LAND DEPARTMENT 1624 WEST ADAMS PHOENIX, AZ 85007	4.3 MILES SOUTH OF AZ. 180 ON AZ. 61, .5 MILES WEST. T 13N, R 26E, Sec. 1/4:
GREER CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	USFS-APACHE SITGREAVES P.O. BOX 640 SPRINGERVILLE 85938	1 MILE EAST OF AZ. 73 ON AZ. 373, 1 MILE EAST OF BIG BEAR LODGE. T 07N, R 27E, Sec. 1/4:
NAVAJO CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	SANTA FE RAILROAD 5200 E. SHEILA STREET LOS ANGELES, AZ 90040	SOUTH OF I-40 AT NAVAJO EXIT, CROSS RR TRACKS, RIGHT AT T 20N, R 26E, Sec. 24 1/4: SE NW
NUTRIOSO CSWLF APACHE			T , R , Sec. 1/4:
ROUND VALLEY CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936 (602) 337-4364	USFS-APACHE SITGREAVES P.O. BOX 640 SPRINGERVILLE 85938	6 MILES SOUTH OF EAGER ON U.S. 666. T 08N, R 30E, Sec. 18 1/4: SW SW NW
SANDERS CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936	CONTINENTAL SERVICE CORP. P.O. BOX 500 PHOENIX, AZ 85001	SOUTH OF I-40 ON AZ. 61 .2 MILES TO DIRT ROAD, .5 MILES EAST. T 21N, R 28E, Sec. 13 1/4: NE NE SW
ST. JOHNS CSWLF APACHE	CITY OF ST. JOHNS BOX 455 ST. JOHNS, AZ 85936 (602) 337-2031	BLM, PHOENIX DIST. OFFICE 2015 WEST DEER VALLEY RD. PHOENIX, AZ 85027 (602) 863-4464	3.3 MILES NORTH OF CLEVELAND STREET ON 2ND STREET WEST. T 13N, R 28E, Sec. 03 1/4: NE NW SW
VERNON CSWLF APACHE	APACHE COUNTY P.O. BOX 428 ST. JOHNS, AZ 85936		T 10N, R 25E, Sec.

DEQ - 111

FACILITY NAME, TYPE AND COUNTY	OPERATOR'S NAME ADDRESS AND PHONE NUMBER	LAND OWNER'S NAME, ADDRESS AND PHONE NUMBER	DIRECT RANGE, SECTION, QUARTER SECTIONS
BOWIE CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	.8 MILES NORTH OF MAIN STREET ON CENTRAL AVENUE. T 13S, R 23E, Sec. 03 1/4: NW NE SW
COCHISE CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	FRANK FLANDERS P.O. BOX 1082 COCHISE, AZ 85606	.6 MILES WEST OF U.S. 666 ON COCHISE ROAD, .2 MILES NORTH. T 15S, R 24E, Sec. 20 1/4: NW SE NW
COURTLAND CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603		ON COURTLAND ROAD. T 19S, R 25E, Sec. 21 1/4:
DOUBLE ADOBE CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	1.75 MILES SOUTH OF PRINCE ROAD ON WEST SIDE OF KINGS HWY. T 23S, R 27E, Sec. 18 1/4: SE NE SE
DOUGLAS (OLD) CSWLF COCHISE	CITY OF DOUGLAS 425 TENTH STREET DOUGLAS, AZ 85607	PHELPS-DODGE CORPORATION P.O. BOX 1238 DOUGLAS, AZ 85607	.3 MILES WEST OF PAN AM ROAD ON 9TH STREET, RIGHT .5 MILES TO T 24N, R 27E, Sec. 14 1/4: NW SW NE
DRAGOON CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	AZ. STATE LAND DEPARTMENT 1624 WEST ADAMS PHOENIX, AZ 85007	3 MILES EAST OF I-10 IN DRAGOON ROAD, 1.5 MILES NORTH ON JOHNSON T 16S, R 22E, Sec. 24 1/4: SW SE NE
NACO CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603		.7 MILES NORTH AND WEST OF 6TH STREET ON D STREET, NACO. T 24S, R 24E, Sec. 1/4:
PEARCE CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603		NORTH ON U.S. 666 3.2 MILES PAST SUNSHINE POST OFFICE, 2.1 MILES T 17S, R 25E, Sec. 1/4:
SAN SIMON CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	SOUTHERN PACIFIC RAILROAD 234 NORTH CENTRAL, RM 623 PHOENIX, AZ 85004	AT SAN SIMON EXIT OF I-10, WEST .75 MILES TO SITE. T 13S, R 31E, Sec. 32 1/4: SE NE NW
ST DAVID CSWLF COCHISE	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	COCHISE COUNTY DRAWER AJ BISBEE, AZ 85603	1.5 MILES NORTH OF U.S. 80 ON SIBYL ROAD. T 17S, R 21E, Sec. 30

DEQ - 112

SPECIAL WASTE UNIT

Current Situation

The Special Waste Unit was created very recently in response to House Bill 2121 as it applies to Special Waste in Article 9. Article 9 specifies that Best Management Practices (BMP) be established by an Industry Voluntary Advisory Council working with DEQ, meeting monthly until 1994.

The Statute resulting from House Bill 2121 provides specific dates that various Special Wastes be defined and specific programs be initiated. In other words manpower as authorized in House Bill 2121 and as shown in Exhibit 29, Hazardous and Solid Waste Section, Current Organization Chart, will reduce the Advisory Council and begin implementing defined Special Waste programs and by 1994 most of approximately 18 programs will be in operation. Asbestos and materials containing Asbestos, shredded auto waste are examples of some of the 18 emerging programs. Enactment of HB 2121 was predicted on the need for better management of special wastes.

As these programs emerge they will be directed to either the Solid Waste Section or the Hazardous Waste Section depending upon the program.

Impact

Through the interviewing process we were unable to find any source of actual calculation of man hours extending through 1994 that would supply us with concrete estimates of FTE requirements either for the interim period or for the following program implementation and operation.

According to our interview, the proposed positions (see Exhibit 37, Solid and Special Waste Units, Current Organizational Chart) have been legislatively approved, but the Special Programs Unit will emerge from the advisory council and DEQ over the next two years have not been specified in terms of either definition or quantification of manpower required to operate them once they have been created.

Since the programs have not yet been either defined or written, but will be done so over the next two years by increments, as called for by statute, it is not necessary to employ those 11 FTEs at this time.

Recommendations

We recommend improvements through the following steps:

- Hiring three positions and eliminating the balance of seven vacant positions (see Exhibit 34.1, Hazardous, Solid and Special Waste Section, Proposed Organizational Chart). The breakdown of seven positions is as follows:
 - Two EHS II - Grade 19 - \$31,123 X 2
 - One R & SA II - Grade 17 - \$26,851
 - Two Env. Prog. Spec. - Grade 20 - \$36,506 X 2
 - One EES - Grade 20 - \$36,506
 - One EEA - Grade 18 - \$30,947

- Developing specific manpower needs as programs emerge.

Benefits

- In July of 1993, a concrete calculation of hours and position responsibilities can be ascertained, resulting in cost avoidance of \$229,562 (all State funded).

Implementation

- Fill three positions

- Personnel action required

- Time frame: 3 months.

PERMIT UNIT, HAZARDOUS WASTE SECTION

Current Situation

The Permit Unit has the responsibility to issue or deny permits for Hazardous Waste Treatment/Storage/Disposal (TSD) facilities.

Prior to 1984 there were no permits issued. In 1984 the existing facilities were "grandfathered" into an interim permit status called "Part A." However, the statute required the facilities to convert "Part A" permits to "Part B" permits (Part B permits indicate a final status and full compliance). The DEQ had established December 1991 as a deadline to convert those permits.

This deadline was not achieved due to various reasons, e.g., high turnover in staff, diversity in complexities of permitting, and lack of man-hour standards. Consequently, there remains 30 facilities which need to be permitted. These constitute a backlog in this point.

The organizational unit structure contains one Environmental Program Supervisor, one Secretary, two Environmental Engineer (P.E.) and three Environmental Engineer Specialists (see Exhibit 29, Hazardous and Solid Waste Section, Current Organizational Chart).

Impact

In our interviews we found that the unit has a flow chart describing length of time required to complete the permit process step-by-step in 18 months. However, there are no written policies or work standards to carry out the tasks or in other words no defined man-hours required for each step.

Review of the flow chart as shown in Exhibit 40, Process Timetable, Hazardous Waste, indicates that the first four steps actually represent over 50% of the actual time required to complete the permit process. While these steps do not represent man-hours required to issue permits, they do affect the efficiency of the process as well as the completion time for permitting. The absence of work standards creates significant management problems.

According to our interviews, 30 TSD facilities need to be issued permits on the basis of the following estimated fees:

- 22 Storage type @ \$25,000 each = \$550,000
- Five Treatment type @ \$50,000 each = \$250,000
- Three Disposal type @ \$ 125,000 each = \$375,000
- Total potential fee that needs to be collected from these 30 permits = \$1,175,000.

We were told in two of our interviews that based on Qualified Technical Estimates, the backlog could be eliminated in two to three years if the Unit could stay fully staffed. However, if the staff is doubled, the backlog could be eliminated in half the time i.e., 18 months instead of three years.

We were also advised that only approximately 10% of the permitting issues required an Environmental Engineer P.E. This means staffing in the Permit Unit could be accomplished with other personnel.

Recommendations

We recommend collecting fees, owed to the State, by reducing the backlog through the following steps:

- Assigning one FTE as a liaison between the Permit Unit and Responsible Party (R.P.) on the first four steps of the permit process via pre-application meetings and persistent assistance to RP
- Initiating guidelines and performance standards and monitoring them through all the steps of the permit process so that the backlog can be removed by July 1993.

Benefits

- Pre-application meetings and further emphasis in specialized assistance to R.P. could reduce the first four steps to one or two steps with much shorter time elapses

- Section and Unit supervision concentrating on all forms of management issues including development, implementation and monitoring of man-hour standards for the steps on the permit process flow will help resolve the backlog in the specified time.

Implementation

- Develop guidelines and performance standards
- Time frame: Approximately 6 months.

HAZARDOUS WASTE - RCRA PART B PERMIT PROCESS TIMETABLE

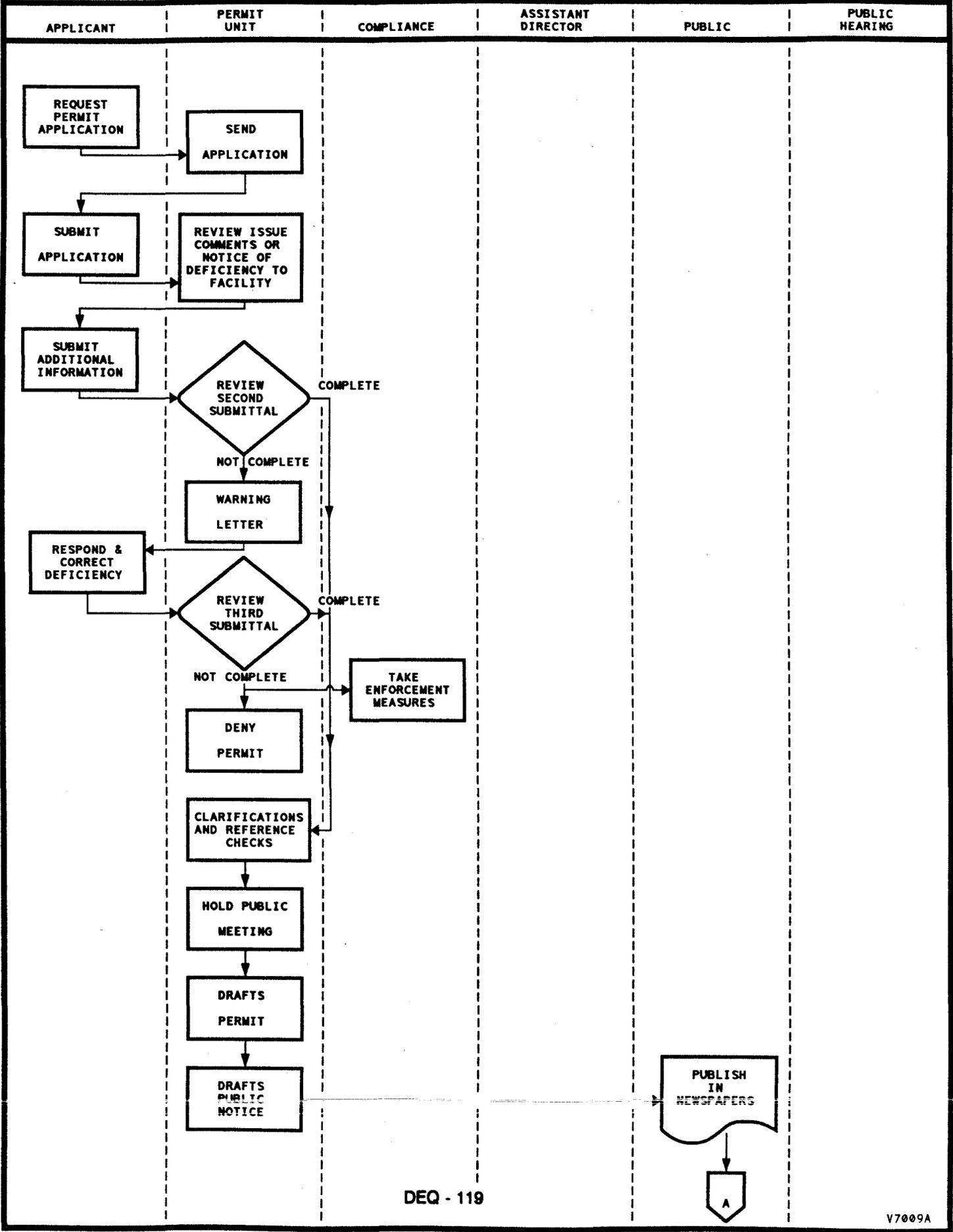
June 25, 1

TASKS	MONTHS																					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
1. Request Part B Permit Application and await submittal.	████████████████████																					
2. Review first submittal and issue comments or Notice of Deficiency to facility.						████████																
3. Facility required to resubmit additional information or respond to NOD.								████████														
4. Agency reviews 2nd submittal and declares application complete or else issues Warning letter with list of deficiencies.										██████												
5. Facility required to respond to Warning Letter and correct deficiencies												██████										
6. Agency reviews 3rd submittal and declares application complete or else refers to enforcement (compliance order) or else denies permit.													██████									
7. Assuming complete application, agency requests/ receives clarifications, character background reference questionnaire, potentially holds public meeting.														██████								
8. Agency drafts permit.															██████							
9. Agency drafts Public Notice and publishes it in local newspaper(s).																			██			
10. Public comment period for draft permit.																			████████			
11. Potential requested public hearing held.																				██████		
12. Responsiveness Summary developed for questions received during hearing; trascription of hearing completed.																					██████	
13. Technical decision made to issue or deny permit; recommendation made to Assistant Director with supporting documentation, possibly requiring signature; press release issued same day as permit decision.																					██████	
4. Permit becomes effective, assuming that no appeal is made; permit file's Administrative Record is bound.																						

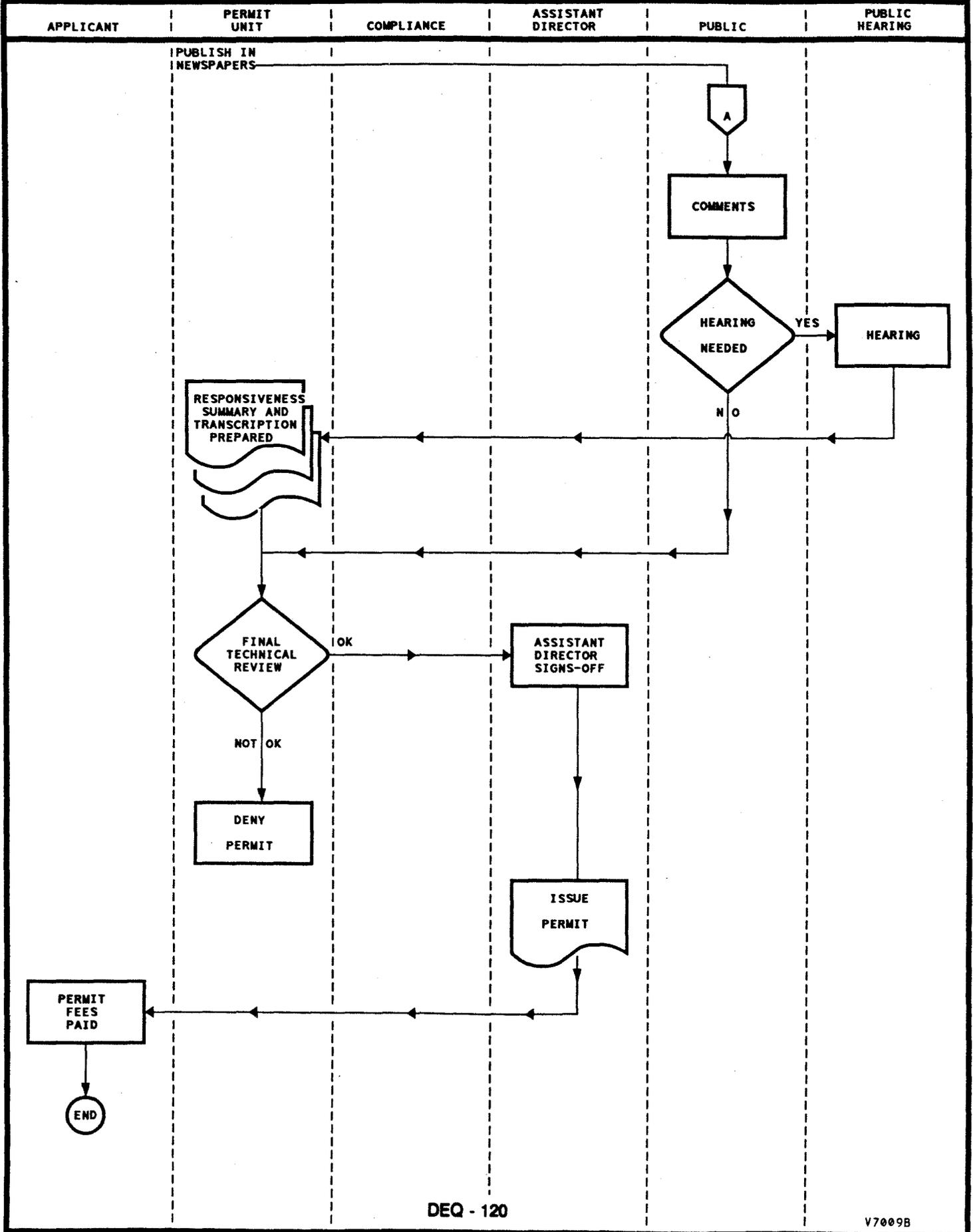
HAZARDOUS WASTE - PERMIT PROCESS

EXHIBIT 41

PAGE 1 OF 2 PAGES

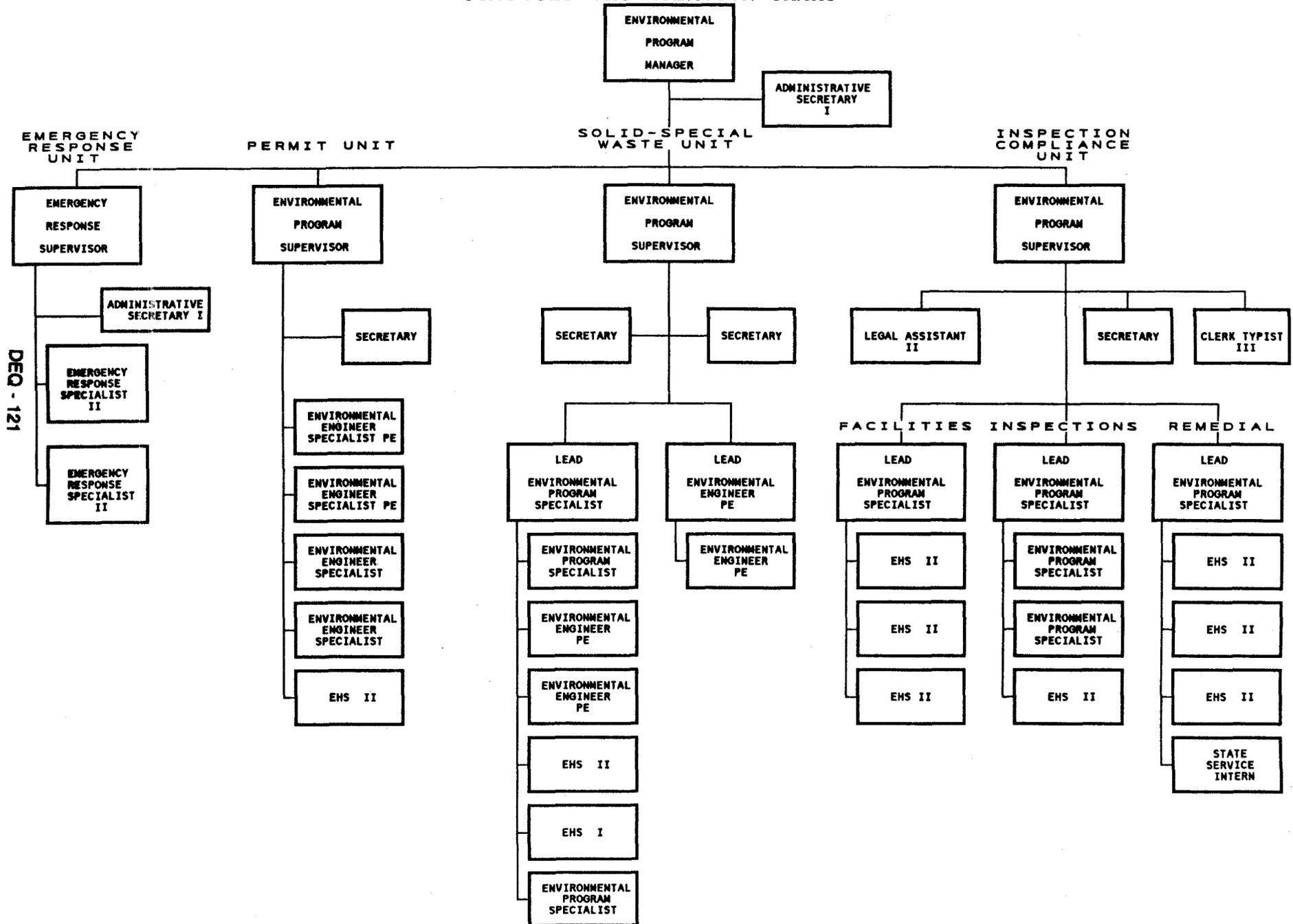


HAZARDOUS WASTE - PERMIT PROCESS



HAZARDOUS, SOLID AND SPECIAL WASTE SECTIONS COMBINED PROPOSED ORGANIZATION CHART

EXHIBIT 34.2



TRANSFER OF FACILITY REPORTING UNIT FUNCTIONS

Current Situations

The functions performed by the six budgeted FTEs of this unit are described in general terms as follows:

- Participate in the rule development process for the state assurance funds (revolving funds)
- Conduct outreach concerning the state assurance fund, activity tax, loan program, and financial responsibility
- Assist the Office of Administration in providing training, answering questions, processing refunds and exemptions, and research
- Enforce technical standards requirements and compliance with law and rules which require various kinds of payments
- Conduct outreach and training concerning the UST (underground storage tanks) data base.

The above functions are normally associated with activities performed by the DEQ Comptroller and Automation Services. There is coordination with the Office of Administration on each of the above functions. This level of effort equates to two FTEs.

Limited effort (one FTE) is expended in the support of work performed by the Corrective Actions Unit. Observations, and interviews with the personnel within the Unit, indicated that the workload within the Unit was not sufficient to fully utilize all personnel assigned. The reduction of one position (R&SA II) would not impair the efficiency or effectiveness of the work performed.

As of November 15, 1991, there were six budgeted position within the Facility Reporting Unit including one vacant position of a Secretary. In addition there are seven new positions proposed (see Exhibit 42, U.S.T. Organization Chart, Current).

Impact

The work performed in this unit, although typically related to the UST Section mission is more realistically a Comptroller function and is included in the Comptroller area of responsibility in the broader sense. This work, even though "piece-mealed" in the UST Section, must be reviewed again in the Office of Administration resulting in a duplication of effort.

The secretarial workload is not sufficient to require the services of a person in that position which is currently vacant. The work is handled by other workers without detriment to the function of the organization. Further, the transfer of positions to the Office of Administration and Corrective Actions Unit would negate the requirement for a supervisor.

Recommendations

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Transfer two positions (one EDP PA II and one filled R&SA II) from the Facility Reporting Unit to the Office of Administration
- Transfer one (S/D) EHS II position from the Facility Reporting Unit to the Corrective Action Unit
- Eliminate nine positions, all UST (one (filled) Environmental Program Supervisor, one R&SA, one Secretary, one Legal Research Specialist II, two Clerk Typist IIs, one Environmental Health Specialist I, and two Environmental Health Specialist IIs) from the Facility Reporting Unit, having the affect of eliminating the entire unit (see Exhibit 43, UST Organization Chart, Proposed).

Benefits

The following benefits will result by implementing the above recommendations:

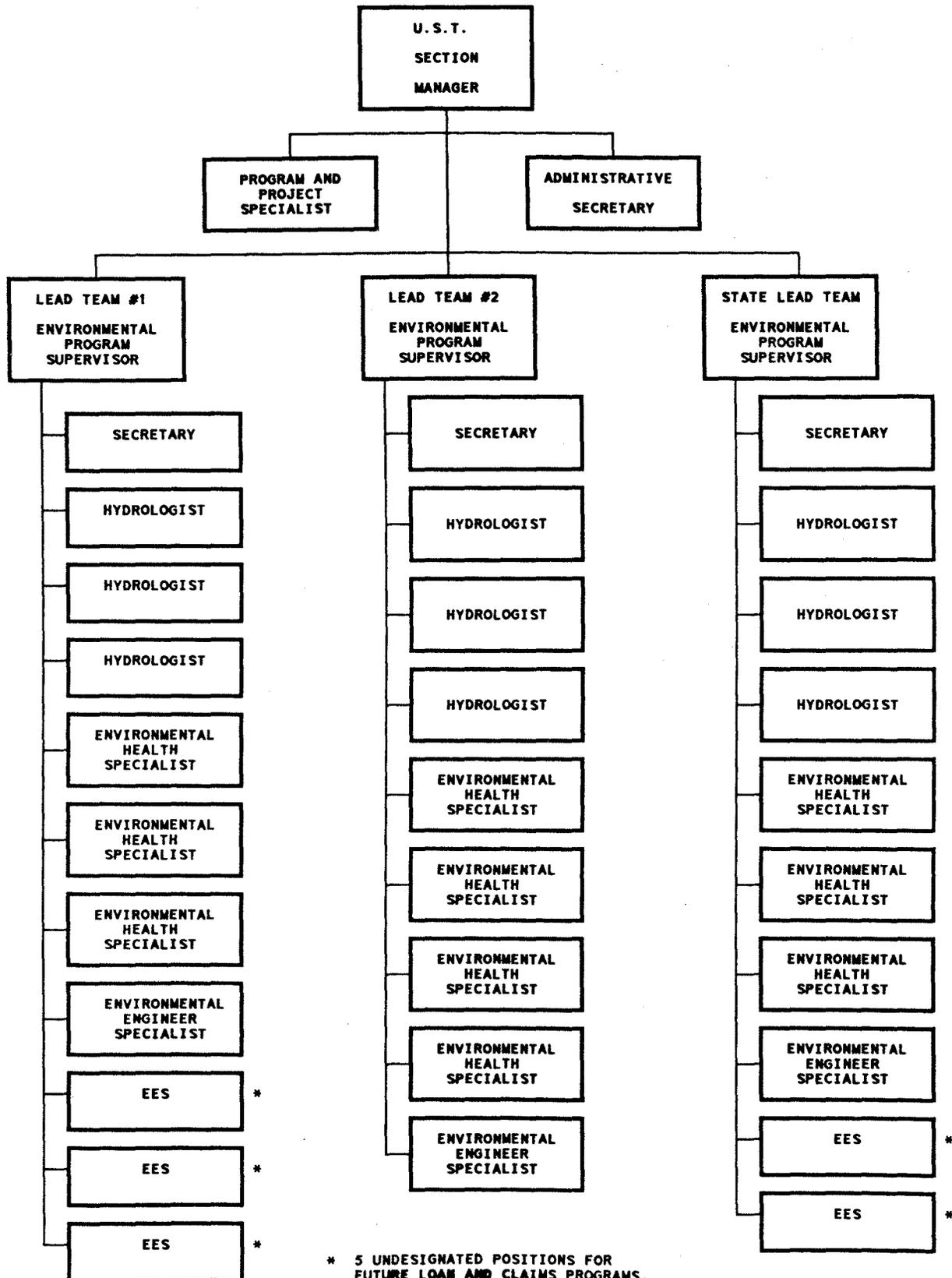
- A more homogeneous assignment of functions

- Better utilization of personnel
- Cost savings from two FTEs of \$72,591, and cost avoidance of seven budgeted FTEs for \$180,002; for a total savings/avoidance of \$252,593 (Federal funds \$26,422; Other funds \$226,171).

Implementation

Administrative actions necessary to transfer personnel positions, revise P.D.Q.s, update organization charts and policy memos; and personnel reporting. This will require approximately 60 days.

PROPOSED ORGANIZATION
UNDERGROUND STORAGE TANK SECTION



* 5 UNDESIGNATED POSITIONS FOR FUTURE LOAN AND CLAIMS PROGRAMS.

COMBINING UNITS IN THE UNDERGROUND STORAGE TANK SECTION

Current Situation

The Corrective Actions Unit is responsible for the following: (Numbers in parenthesis indicate six months workload)

- Responding to complaints and release reports (233)
- Conducting compliance reviews (346)
- Issuing warning letters (10)
- Issuing administrative orders (2)
- Attorney General referrals (2)
- Following up on regulations violations (544)
- Enforcement tracking
- Preparing summary information and reporting
- Closing cases (2)
- Responding to public inquiries (4,806)
- Public presentations (25).

This Unit is organized under the manager of the UST Section and is divided into three teams and support staff (see Exhibit 42, U.S.T. Organization Chart, Current).

The Hydrology Unit is responsible for:

- **Technical support to other agencies, public, and industry (1,457)**
- **Technical support and assistance to the corrective Actions Unit (137)**
- **Oversight of facility investigations and corrective actions of hazardous substance releases (2)**
- **Comments on financial responsibility and state assurance fund documents**
- **Evaluation of impacts on public health from UST releases**
- **Review of complaint investigations and reports (286)**
- **Tracking log maintenance for all LUST (leaking underground storage tanks) sites undergoing investigations**
- **Public presentations (8)**
- **Development of technical guidance and documents (3).**

The Hydrology Unit is organized under the manager of UST Section and is divided into three lead teams and support staff (see Exhibit 42, U.S.T. Organization Chart, Current).

The UST Engineering Unit was organized in its present configuration on October 1, 1991. This Unit is responsible for:

- **Conducting UST inspections of existing facilities (64)**
- **Completing inspection reports (64)**
- **Responding to complaints from sources**
- **Making referrals to Corrective Actions Unit of violations**
- **Providing outreach in the form of presentations and training to the regulated community**

- Reviewing plans of sources submitted for the loan program.

Inspectors working three days each week in the field, can inspect 300 facilities each year. This equates to six inspections per week, or two inspections per day for 50 weeks. Three inspectors should be able to perform 900 inspections each year. This level of effort should be sufficient to perform required annual facility inspections.

The process within the Section normally begins with a report from a source in the form of a complaint or notice of violation (release). A complaint or report may process through three separate Units and three levels of supervision.

The flow of paper work and personnel effort is shown in Exhibit 44, U.S.T. Corrective Action Reporting, Flow Chart. The three Teams were established in both the Corrective Actions Unit and the Hydrology Unit on the basis that the Lead person could not direct and monitor more than 7 - 10 FTEs, and on the basis of approval and funding of all proposed positions.

At the time of this study Corrective Actions Unit Team 1 had one Lead person and two EMS IIs assigned; Team 2 had one Lead and four EMS's assigned; the State Team had one Lead person and three EMS's assigned.

At the same time the Hydrology Unit Team 1 had one Lead staff and two Hydrologists assigned; Team 2 had one Lead position and three Hydrologists assigned; the State Team had one Lead position and three Hydrologists assigned.

In both Units, Teams 1 and 2 perform identical functions. The State Team in both Units perform the same functions as Teams 1 and 2. The only difference is the funds out of which their work is accomplished. The State Teams are funded from the State Assurance and LUST Trust Funds.

The UST Hydrology Unit performs a technical review as a step in the total process within the UST Section. This requires familiarization with the case in order to assess the extent of the problem and its possible impact on the surrounding environment. To do this, the hydrologist must review the same documentation and situation that have already been reviewed in the Corrective Actions Unit.

During the interviews it was stated that the process is delayed approximately two weeks for reviews at the supervisory levels.

Impact

The present span of control exercised by the supervisors of the corrective Actions Unit and UST Hydrology Unit, including the Teams, is limited to 3 - 4 FTEs, all of whom have similar levels of technical expertise and environmental disciplines.

There is no basic difference in the varieties of problems reviewed between the Units. Combining Corrective Actions and UST Hydrology Units will alleviate the fragmented work now being performed in the two Units. Excessive handling of papers and reviews will be curtailed if one team does the entire process except the engineering portion, which is not required in all cases.

At the present time there is no cross-training between Units. Such training will allow total processing at one work station, in most cases, and will provide a broader base of expertise at the operating levels. This will enhance the utilization of personnel and should assist in raising the level of responsibility of the employee, and in turn increasing salaries in the long run. Such a move should have a positive affect on the retention of the better qualified personnel, thus increasing productivity.

Recommendations

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Combining the Corrective Actions Unit, UST Engineering Unit and UST Hydrology Unit, resulting in a Section Manager with staff and three Teams (see Exhibit 43, U.S.T. Organization Chart, Proposed)
- Eliminating the three Unit Managers and three Unit Secretarial positions
- Establishing a one-stop processing and follow-up station to handle all actions required within the UST Section regarding complaints, release reports, compliance, enforcement, responses to public inquiries, and reporting
- Providing the total technical expertise in one work station to accomplish the complete work process without going through three separate organizational segments and three supervisory levels and positions

- Reducing the total process time line by an average of two weeks
- Providing a broader base of expertise for the specialists and technicians through cross training.

Benefits

Implementation of the above recommendations will result in a reduction of 11 filled positions as follows:

- Two Secretaries
- Three Research & Statistical Analysts
- One State Service Intern
- One Administrative Assistant III
- One Hydrologist IV
- One Environmental Health Specialist
- Two Environmental Program Supervisors
 - Combined cost savings of \$434,929
- This will also eliminate 18 vacant and 11 proposed positions, as shown in the current organization chart, for a combined savings of \$1,144,326
 - Total savings, this Recommendation: \$1,579,255
 - Federal funds \$367,129, Other funds (UST) \$1,212,126.

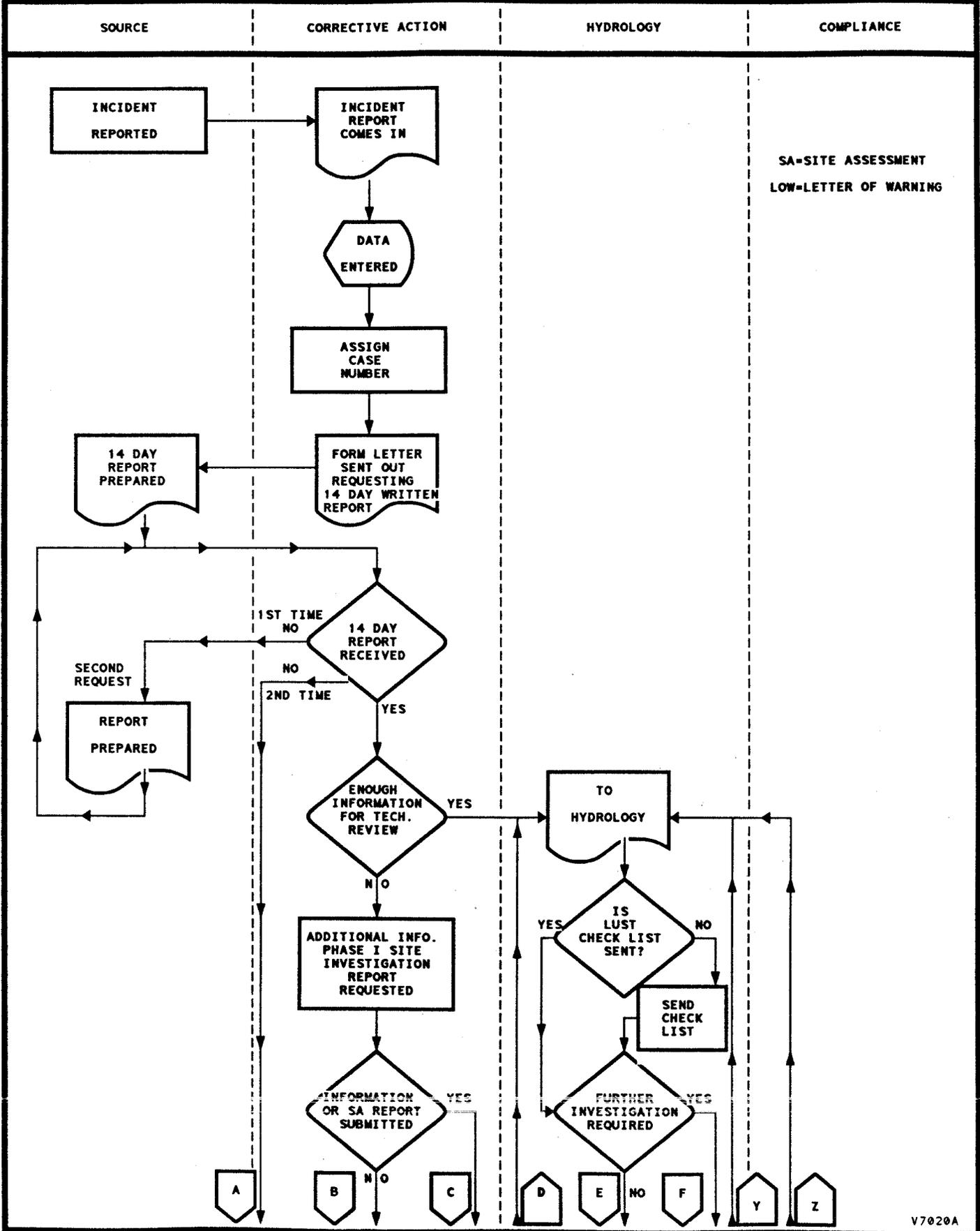
NOTE: Five undesignated positions were provided to accomplish new workload as the result of the loan program and claims program.

Implementation

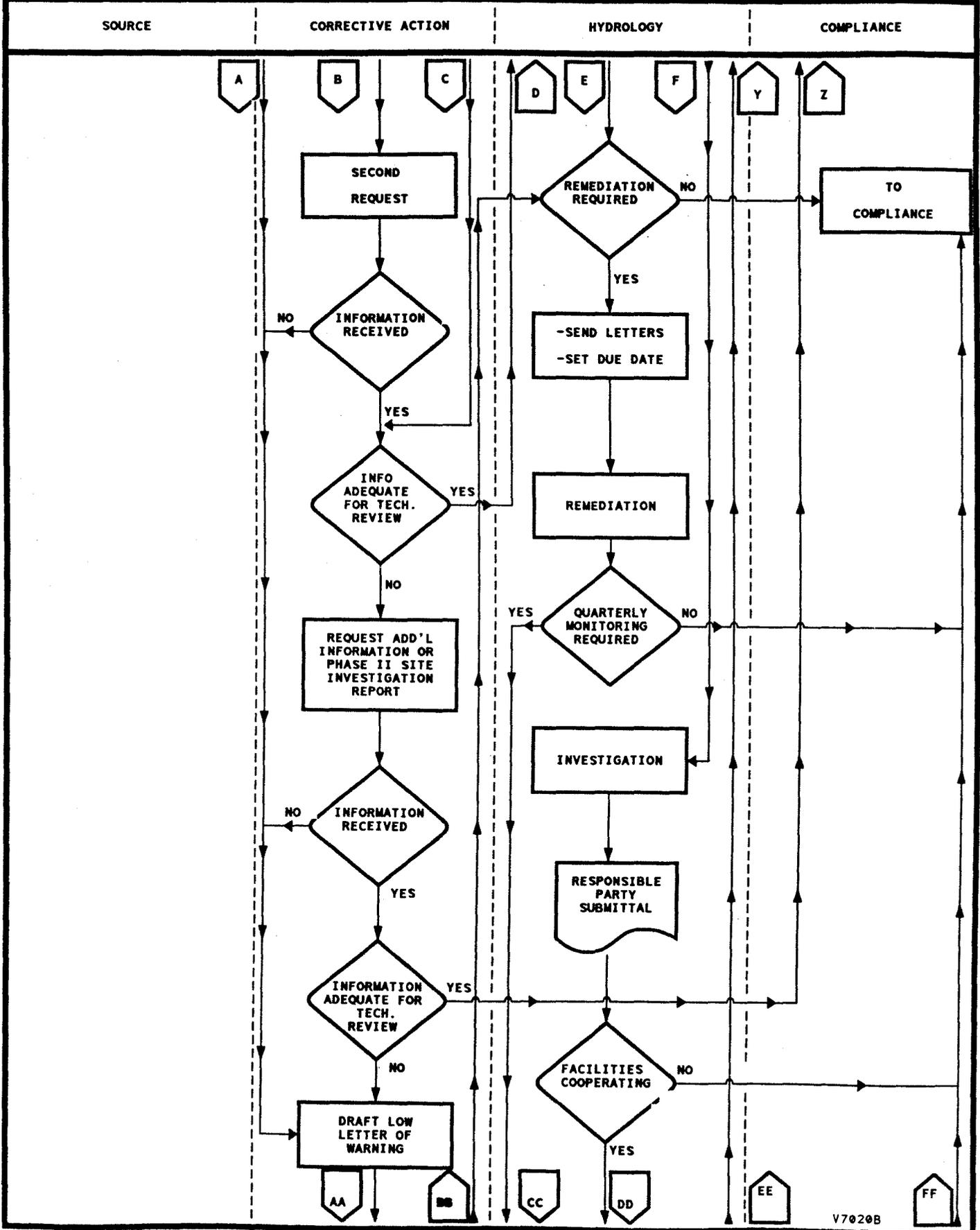
Steps required:

- Personnel actions to reflect disposition of affected positions
- Update organization manual
- Revise policies and procedures
- Time frame: Approximately 60 days.

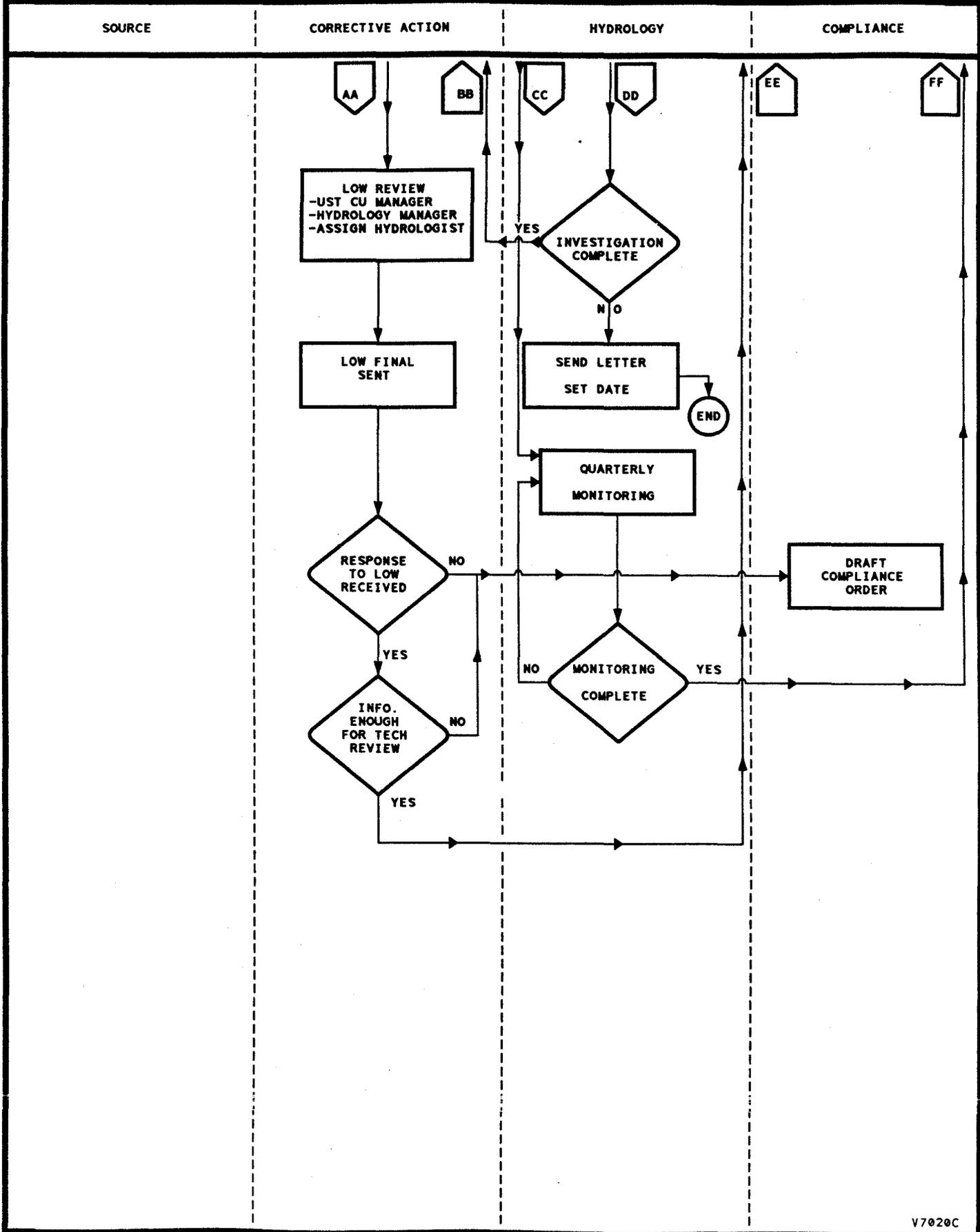
U S T - CORRECTIVE ACTION INCIDENT REPORTING



U S T - CORRECTIVE ACTION INCIDENT REPORTING



U S T - CORRECTIVE ACTION INCIDENT REPORTING



CONTRACTING/LEGAL SERVICES

Current Situation

At the present time contracts are developed in various areas of the Department, with each Section responsible for their own contract drafting. The Remedial Coordination Unit in the Pre-remedial and Remedial Section of the Office of Waste Products has primary responsibility for writing federal grant applications; preparing contracts with the EPA, the Office of the Attorney General, and private contractors; overseeing payments under contracts (by verifying invoices and billings); confirming with the Project Managers the actual work done; confirming compliance with contract standards and negotiating with EPA regarding the number of sites now on NPL, and whether DEQ or EPA will take the lead on remediation efforts.

Legal review of these contracts, and of those services provided under contract, also are managed in this Unit.

Project Managers in the Remedial Unit are responsible for ensuring that contractors perform their work according to the Task Assignments and contract, and approving their invoices. However, the invoices for work completed are then sent to the Remedial Coordination Unit who authenticate, with the Project Managers in the Remedial Unit, the work performed by the contractors.

There is a duplication of effort between the Remedial Coordination Unit and the Remedial Unit, and also with what should be the functions of the Administration Division Contracts/Procurement staff (see Exhibit 45, Site Evaluation Process, Waste Division, Flow Chart).

Impact

Basically the activities of the Remedial Coordination Unit involve negotiating and writing contracts (an administration function); confirming and authorizing payment on invoices (an accounting function); and drafting consent decrees and reviewing legal language in contracts (a legal section function).

This overlap and duplication of activities and services throughout the Department makes it difficult for outside entities to deal with the Department, to know whom to contact on specific issues, and creates the potential for contradictory information or decisions from different groups performing the same functions (see Exhibit 46, Pre-Remedial & Remedial Projects, Current Organizational Chart).

Recommendations

It is recommended that the following actions be taken:

- Transfer positions as follows:
 - Contract Management Specialist III
 - to Administrative Division, Contract and Procurement Section
 - Legal Assistants II (two positions)
 - to the Legal and Rules Office, to perform negotiations, and legal language preparation of documents, to assist the A.G.'s office, who must review all work prepared by DEQ in this area
 - One Environmental Engineer to the Pre-Remedial Unit
 - One Environmental Engineer to the Remedial Unit
 - One Secretary to the Remedial Unit
 - See Exhibit 47, Remediation Section, Proposed Organization Chart
- Transfer the following functions, as noted:
 - Confirmation of work performed, and validity of invoices submitted, to the Remedial Unit Project Managers, who presently oversee that work
 - Processing, and payment, of invoices, to the Administration Division accounting office, which now receives them from the Remedial Coordination Unit
- Elimination of the below listed positions:
 - One Environmental Program Supervisor, Grade 22 at \$52,150 annual

- One Administrative Assistant III, pay grade 17, at \$24,869 annual
- Three proposed State Service Interns from the Remedial Coordination Unit, at \$17,700 each, annual (total \$53,100)
- Eliminate the Remedial Coordination Unit, distributing the above positions and functions as noted.

Benefits

The following benefits will be achieved by adoption of these recommendations:

- Coordination of legal functions effecting the Department within one concisely organized Unit
- Coordination of the contracting functions effecting the Department within one concentrated Unit
- Elimination of potential miscommunication relative to these services, while
 - Assuring common service to all Sections of the Department
 - Relieving other Units of the necessity of providing such services
 - Making more efficient use of the specialized skills within the Department required to perform these functions
- Total savings by these position eliminations equals:
 - \$77,019 annual cost savings from two filled positions (WQARF fund)
 - \$53,100 annual cost avoidance from three vacant Inter positions (WQARF fund).

Implementation

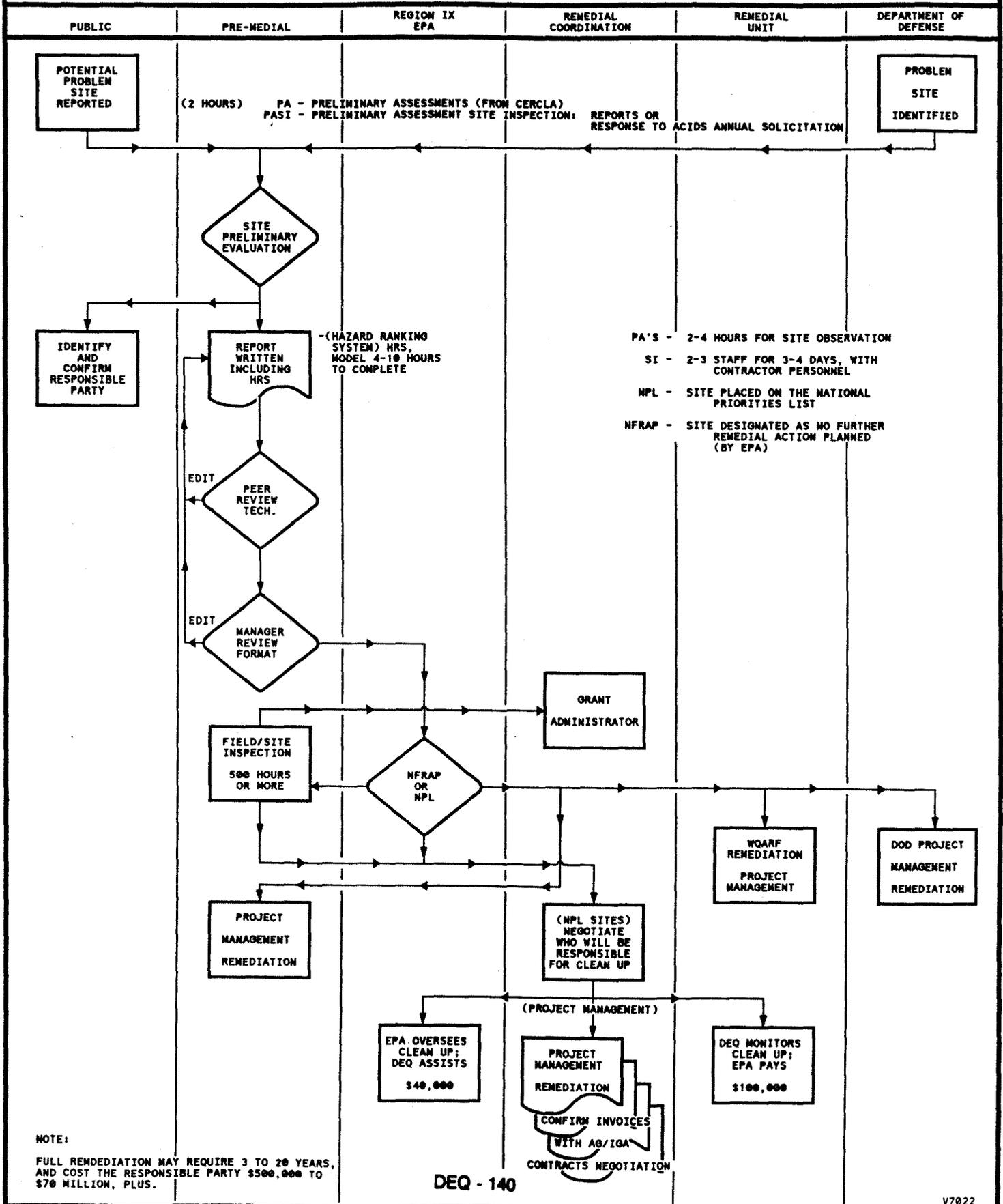
Implementation of these recommendations will possibly involve the re-writing of some IGAs, if those have been prepared with a specific Unit designation.

Beyond that need, a management decision, and consequent reorganization will accomplish the task.

- Note the recommendation for "Authorization of DEQ Attorneys," who have specialized training in environmental issues
- Also, reference should be made to the recommendation "Federal Facilities and Pre-Remedial Units," as it constitutes a companion recommendation
- Time frame: Approximately 6 months.

**CURRENT FLOW CHART - WASTE DIVISION
SITE EVALUATION PROCESS
PRE-REMEDIAL AND REMEDIAL SECTION**

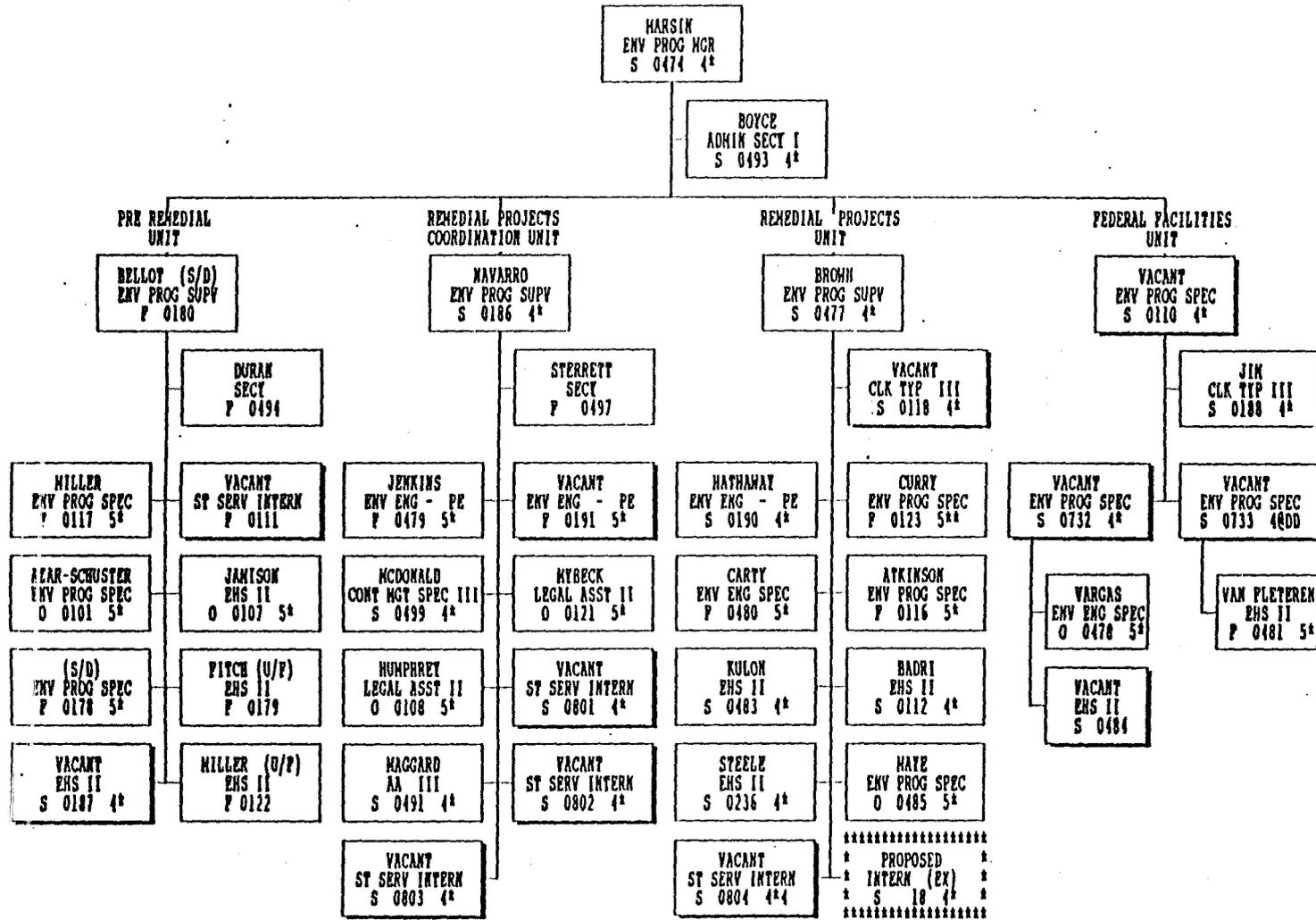
EXHIBIT 45



DEQ-OFFICE OF WASTE PROGRAMS
 REMEDIAL PROJECTS SECTION
 JANUARY 01, 1992

EXHIBIT 46

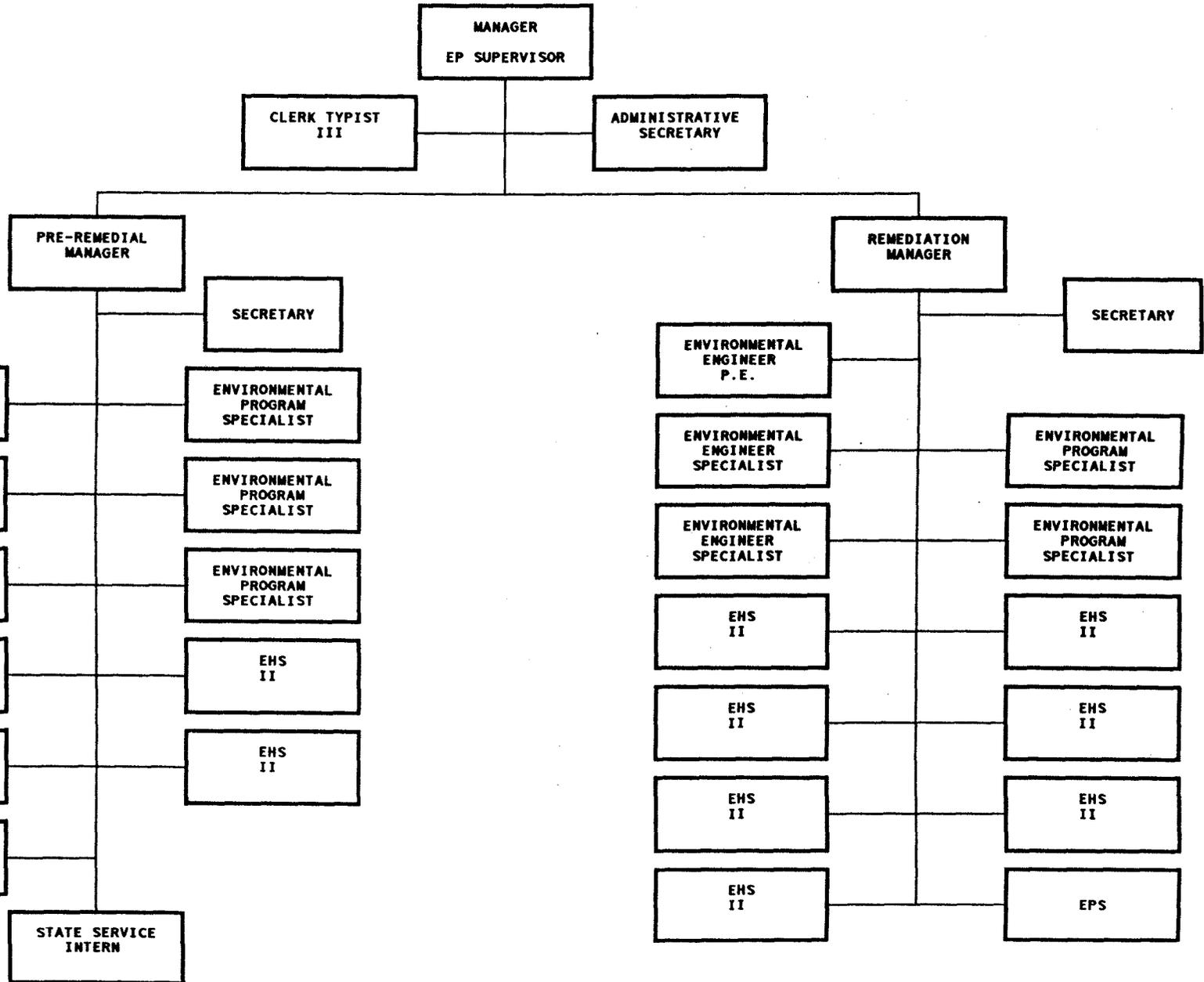
DEQ - 141



WASTE DIVISION REMEDIATION SECTION PROPOSED ORGANIZATION CHART

EXHIBIT 47

DEQ - 142



DEPARTMENT of ENVIRONMENTAL QUALITY

OFFICE OF WATER QUALITY RECOMMENDATIONS

PROGRAM COORDINATION/CERTIFICATION SECTION PLACEMENT

Current Situation

The Program Coordination-Certification Section is organized under the Office of Water Quality [OWQ] (see Exhibit 48, Program Coordination - Certification Section) and is authorized 17 FTEs.

The primary functions performed by this Section include:

- Leads effort to formulate and assess water quality goals and priorities
- Develops and updates the long term plans
- Coordinates the OWQ planning process
- Assists in formulating State Water Quality Management (WQM) policies
- Coordinates development of water quality grants and annual work-plans
- Conducts ongoing program/plan evaluation efforts
- Administers water and wastewater operator certification program and
- Provides technical assistance, operator testing and program development efforts.

The Operator Certification Unit consists of three FTEs; one Unit Chief (Environmental Program Specialist) and two Clerk Typists. These positions administer the operator testing program required prior to the operating of water facilities. The time line for the certification program is closely aligned with the granting of permits for the facility operation. There is a direct relationship with the Compliance Section.

During the past 12 months approximately 800 operators were certified. Currently about 4,000 operators hold three-year certificates. Approximately 1,600 examinations have been given to prospective operators. Fees collected for the certificates amount to approximately \$60,000 per year. These fees are deposited in the State General Funds rather than a revolving account to pay for the administration of the certification program. Personnel costs, not including Section supervision, amount to approximately \$90,000 per year, including ERE.

As of the end of FY 1991, there were 24 active federal grants with a total value of approximately \$20 million being coordinated and monitored within the Planning and Grants Unit. In addition, this Unit prepared 63 DEQ work-plan revisions. Six FTEs are authorized in this Unit including five assigned and one vacancy. The Planning and Evaluation Unit coordinates the statewide Water Quality Management planning process, updates the Long Term Plan and conducts the evaluation effort of water quality program mandates and objectives as established by the Department and Federal Government.

Seven positions are authorized and budgeted for the Planning and Evaluation Unit, four vacant three assigned, of which one FTE has been on special detail to another organization for the past 1-1/2 years. Two FTEs remaining in the Planning and Evaluation Unit, one supervisor and one Program and Project Specialist II to perform the work assigned.

No significant backlog exists in any of the Units under the Program Coordination-Certification Section. Operator Certification Unit activities are unrelated to the other two units.

Impact

The placement of the operator certification program within this Section creates an additional coordination process between the Section and the Compliance Section. The process would be significantly enhanced by the transfer of certification functions to the Compliance Section. Further it would physically combine functions to provide for instantaneous communication between interrelated interests. The compliance inspector can check for proper certification during the course of routine inspections and report directly to operator certification personnel if anyone is in violation. The person in charge of operator certification may provide technical assistance and operator testing as appropriate.

The planning and evaluation function for the Office of Water Quality is relegated to Section level with no direct relationship to any other formal planning activity except to provide a section of the ADEQ Strategic Plan. There is little cross communication with other divisions within the department.

The individual long term plans from the divisions are then consolidated by one person at the director's level. The present planning process in the department does not provide for any plans review, evaluation and progress monitoring in a central location reporting to the director.

This situation reduces the ability to effectively manage since there is a lack of sound planning and feedback which is a basic management function.

Recommendations

We recommend the following:

- Transfer the functions of the Operator Certification Unit to the Compliance Section along with three FTEs as currently assigned
- Combine the planning function of the Planning and Evaluation Unit with those of the Planning and Grants Unit and transfer to a central planning office, along with five FTEs
- Transfer the function of coordination oversight and progress review and accounting to the Comptroller's office within the Office of Administration along with one FTE
- Eliminate the Program Coordination-Certification Section as an organizational segment of the Office of Water Quality
- Reduce the number of FTEs from seventeen to nine and transfer those as indicated above, resulting in a net reduction of eight FTEs (six vacant positions, one Planning and Evaluation Unit Planner III, and one Section Manager, Planner IV).
- The breakdown of eight FTEs is as follows:

One filled Planner IV, Grade 22, one filled Planner III, Grade 21, one vacant Clerk Typist II, Grade 9, two vacant Program Project Specialist, Grade 19, one vacant Planner II, Grade 19, and one vacant Intern, Grade 9.

Benefits

The following benefits will result by implementing the above recommendations:

- Better communications between personnel performing related activities
- Increased effectiveness of individuals and organization segments
- A more homogeneous assignment of functions under various organization managers

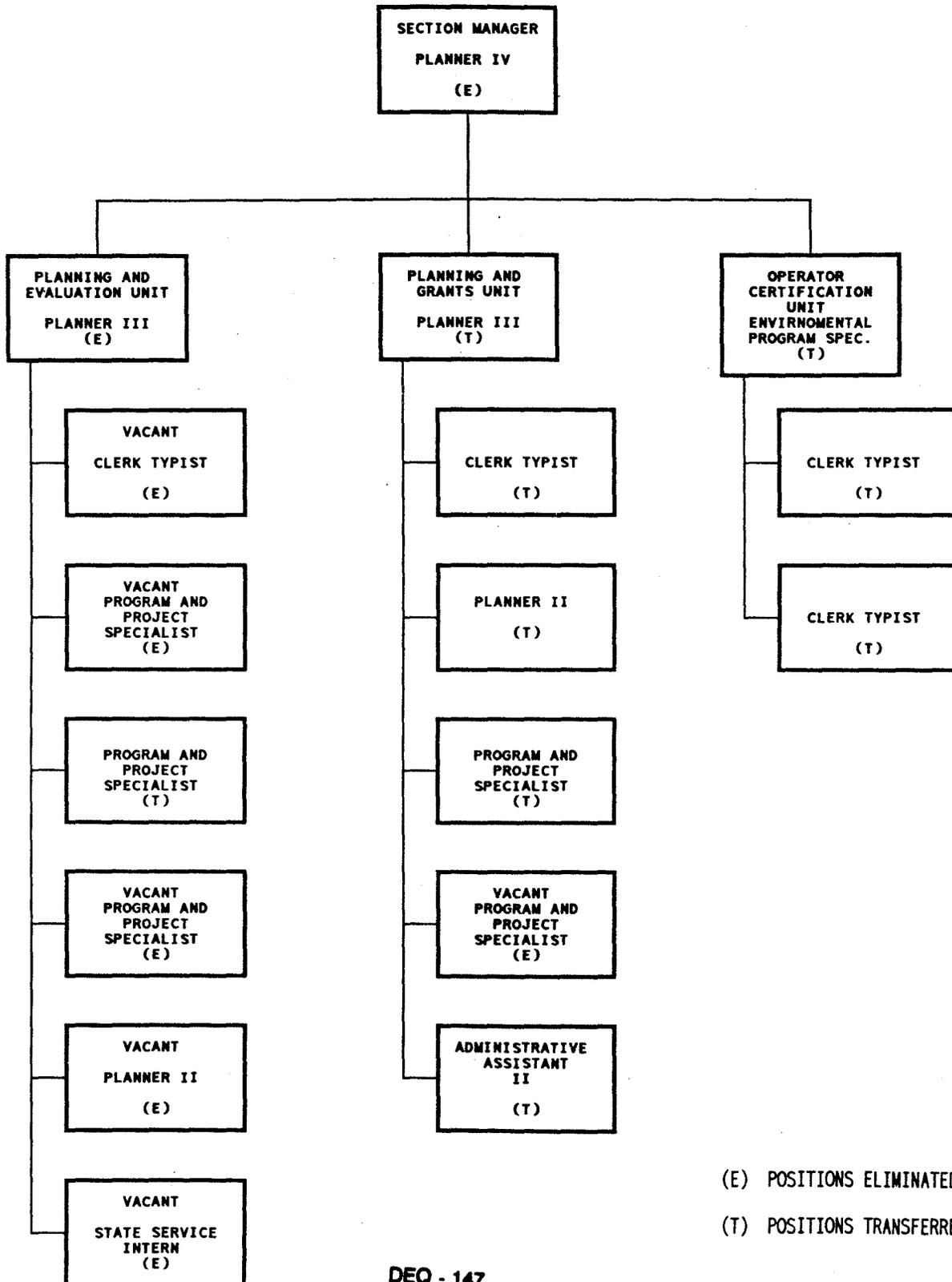
- A centralized planning office for the department which will provide management with appropriate information from which long term goals and objectives may be evaluated on a periodic basis
- Better utilization of personnel
- Simplification of the processes involved to accomplish the assigned mission.
- Cost reduction of \$104,229
- Cost avoidance of \$185,412
- Total savings \$289,641 -- State funds \$233,157; Federal funds \$56,484.

Implementation

Steps to implement the recommendations are:

- Revise organization manual
- Revise policy and procedures documents
- Prepare personnel action documents and execute
- Estimate implementation time line in 60 days.

OFFICE OF WATER QUALITY
 PROGRAM COORDINATION - CERTIFICATION SECTION
 CURRENT ORGANIZATION CHART (AS OF NOV. 1, 1991)



(E) POSITIONS ELIMINATED

(T) POSITIONS TRANSFERRED

REVOLVING FUND UNIT TRANSFER

Current Situation

The Revolving Fund Administration and Revolving Fund Projects units are organized under the Office of Water Quality [OWQ] (see Exhibit 49, Field Services Section, Current Organizational Chart).

The Revolving fund units administer and monitor the activities associated with the Revolving Fund within the Office of Water Quality.

As indicated in the organization chart, two Units are assigned the work associated with the Revolving Fund for Water Quality projects. These units are the Revolving Fund Projects Unit with eight budgeted FTEs, and the Revolving Fund Administration Unit with six budgeted FTEs. At the time of the study, the Projects Unit had two FTEs assigned and the Administration Unit had four FTEs assigned.

The personnel in the Projects Unit are engaged in monitoring the Revolving Fund project status and coordination. The effort within the Administration Unit is primarily that of record keeping. Both of these functions are normally accomplished by the Comptroller of an Agency or Department rather than within a field operation as in this case. There is no homogeneity between these two units and the rest of the Field Services Section.

There is no significant backlog within any of the units as of January 1, 1992. A temporary backlog exists at times due to climatic conditions or a periodic surge in work assigned. There is no consistency in any specific type of effort being backlogged.

Impact

The current span of control for the Revolving fund supervisors is 1:3 in the Administration Unit and 1:1 in the Projects Unit. The level of administration and technical expertise is the same for both supervisors.

The location of the Revolving Fund activities within the Field Services Section requires the Section Manager to be capable in the area of finance as well as inspections. The two are unrelated. Further, the present functional location lengthens the lines of communication, adds levels of review, and increases the

coordination workload between organizations. The Revolving Fund tasks and products must, sooner or later, be accounted for in the Comptroller Office.

The lack of a consistent backlog within the Units of the section indicate that the present assigned staff can perform the work required.

Recommendations

We recommend achieving greater efficiency and effectiveness of operations through the following steps:

- Transferring the Revolving Fund Administration Unit and the Revolving Fund Projects Unit as one combined unit to the Comptroller's office in the office of Administration along with five FTEs
- Eliminating nine FTEs, - one filled E.P. Supervisor (Grade 22), one filled EES (Grade 20), two vacant Clerk Typist III (Grade 11), one vacant Contract Management Specialist (Grade 17), one vacant Environment Engineer P.E. (Grade 21), two vacant AA II (Grade 15) and one vacant EHS II (Grade 19)
- Placing related functions together

Benefits

- Implementing of the above recommendations will result in a reduction of nine FTEs from the number currently authorized and budgeted, for an immediate savings of \$295,670 per year. Two of these positions are filled, representing a cost reduction of \$72,875; and seven positions are vacant, providing a cost avoidance of \$222,795. Federal funds \$108,760; Other funds \$186,910
- Coordination time and effort of financing activities between this Section and the Comptroller's Office should be reduced by adjacent location
- The supervisor of the regional offices will no longer have to deal with totally unrelated work.

Implementation

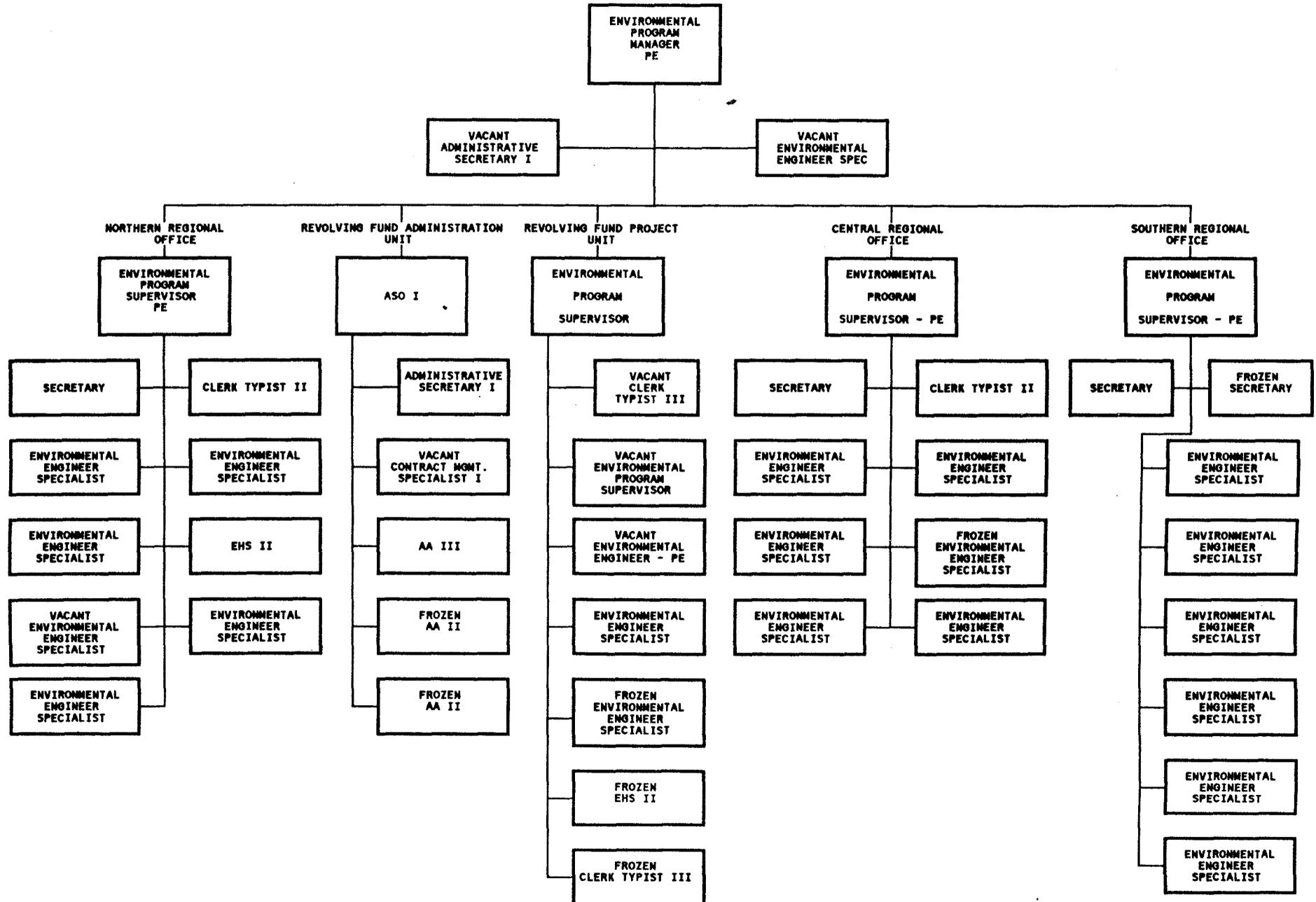
Steps to implement are:

- Revision of organization manual, policies and procedures
- Process personnel documents
- Estimated time line in 60 days.

DEQ - OFFICE OF WATER QUALITY
FIELD SERVICES SECTION
CURRENT

EXHIBIT 49

DEQ - 151



ASSIGNMENT OF WATER QUALITY FIELD OFFICES

Current Situation

The Regional Offices of the Field Services Section of the office of Water Quality are organized (see Exhibit 49, Field Services Section - Current Organizational Chart).

The general functions performed by the Regional Offices in their Section are as follows:

- Field inspections of drinking water and waste water locations throughout the State
- Inspection of proposed new water facilities
- Updating drinking and waste water inventories
- Sampling of water
- Processing water quality complaints received from all sources
- Performing follow-up inspections
- Preparing activity reports for the Federal Environmental Protection Agency (EPA).

The three Regional Offices - Central, Northern and Southern, perform the inspection and other functions listed above for the State-wide Water Quality mission. This work is similar to the activities performed by the Compliance Section, and both work with the same water facilities resulting in an overlap of some efforts such as review time, travel, etc. (see Exhibit 50, Compliance Section, OWQ, Current Organizational Chart).

The three Regional Offices are authorized about the same number of FTE's. There are ten authorized in the Northern Region and nine each in the Central and Southern Regions. Geographic area and number of facilities are divided among the regions to equalize the workload as much as possible, maintaining the highest level of staff utilization.

Although no work measurement standards exist in the field operations, a monthly report is prepared showing the volume of work activity. By applying a best estimate weighted average of worker hours to these activities a crude standard can be developed. Time constraints placed on the study did not provide sufficient time to prepare engineered work standards.

At the present time there is no cross training program for the inspection and compliance functions. The expertise required in both areas is closely correlated and would require a minimum of training to become proficient in both areas.

No significant backlog presently exists within any of the three Regional Offices. Standard forms developed in the Southern Region have been a help to the inspectors by providing a checklist of areas inspected. Such a list ensures completeness of inspection, speeds up the time required to perform an inspection and in some cases identifies areas that may be overlooked if making an inspection totally from memory. Standardized forms and procedures are also valuable for cross-training.

The scheduling of inspection is currently done without regard to any on-site reviews by the compliance personnel. There is no coordination between offices as to work assignments.

Impact

The current system does not provide for cross-training of compliance and inspection personnel. Site reviews and inspections, with a minimum of cross-training, should not require the services of two individuals. Overlapping jurisdiction results in multiple visits at individual water systems, extra travel time and costs and potential for conflicting instructions to the public.

Recommendation

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Transfer the three Regional Offices to the Compliance Section
- Transfer the Field Services Section Manager to Compliance Section and reclassify as a Unit Manager

- Reducing the authorized FTEs in the Field Service Manager's Office from three to two, by eliminating the vacant Environmental Engineering Specialist position
- Initiating a cross training program for both compliance and inspection personnel
- Preparing standardized pre-printed check lists for each type of facility being inspected
- Reducing the budgeted FTE positions in the Central Regional Office from nine to six, eliminating one Clerk Typist, one frozen Environmental Engineering Specialist, and one filled Environmental Engineering Specialist
- Reducing the budgeted FTE positions in the Southern Regional Office from nine to six, eliminating one frozen Secretary position, two Environmental Engineering Specialists of which one is vacant
- Reducing the budgeted FTE positions in the Northern Regional Office from ten to seven, eliminating one vacant Clerk Typist position and two Environmental Engineering Specialists. The larger geographical area and special efforts required in Sedona justifies one FTE above those required in the other two Regions.

NOTE: see Exhibit 51, Compliance Section, OWQ, Proposed Organizational Chart; for position transfers and reductions.

Benefits

The benefits to be achieved by these recommendations include:

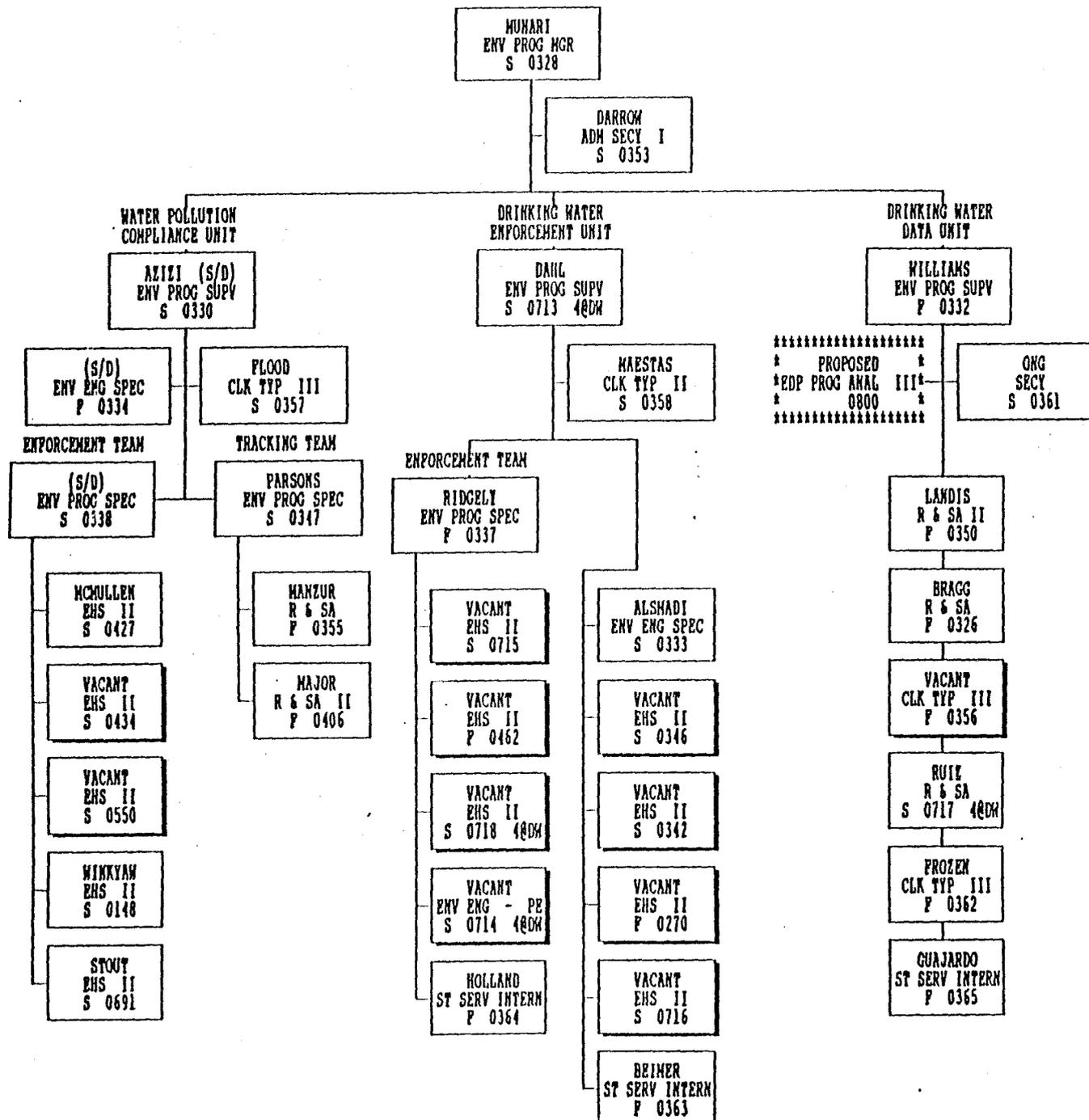
- A reduction of ten budgeted FTEs for a savings of approximately \$213,302 (six FTEs) in cost avoidance, and \$104,418 (four FTEs) in cost reduction, for a total of \$317,720. Federal funds \$87,667; State funds \$211,753; Other funds \$18,300
- The organization transfer will reduce the time required for coordinating the work between compliance and inspection functions

- A cross training program will increase the technical expertise of the employees and in turn will increase productivity. One technician can perform a variety of functions, thereby increasing his/her value to the organization
- Preparing standardized forms and check lists for compliance and inspections should decrease the manual labor time in their preparation. Further, it will also reduce the manual labor involved in recording data into a computerized system when such a system becomes available.

Implementation

- Initiate cross-training
- Prepare standardized forms
- Prepare necessary personnel documents for position transfers and eliminations
- Time frame: Approximately 60 days.

DEQ - 158



COMBINE DRINKING WATER ENFORCEMENT AND DATA

Current Situation

In 1991 two units -- Drinking Water Compliance Unit (DWCU) and Drinking Water Data Unit (DWDU) -- were created out of the formerly single Drinking Water Enforcement Unit. The focus of these Units is to ensure the safety of the public's drinking water, by monitoring and ensuring compliance to standards of those firms which provide that drinking water. Exhibit 50 shows this organization.

In the Data Unit there is a Unit Manager, two Clerk Typists, a "frozen" Clerk Typist III and a vacant Clerk Typist III position, a "proposed" EDP Programmer Analyst III position, and one filled State Service Intern position. In the Enforcement Unit are two filled State Service Intern positions, and eight (8) currently vacant Environmental Health Specialist II (EHS II) positions, plus the two Team Leaders, Secretary and Unit Manager.

Work division has not occurred since this separation, as the Data Unit continues to perform an initial, "front line" (and seemingly very effective) enforcement role in the preliminary interpretation of laboratory data received, and communication of potential problems to the water system owners and operators ("system") being served. Among numerous other functions being performed this Unit inputs all laboratory report data into the data base, and extracts from it a weekly DWCU Compliance Tracking List.

The Technical Review Team duplicates the work assigned to the Plan Review and Permits Section Technical Review Unit, and also performs enforcement duties as well as Rule writing (recommended elsewhere to all be housed within the Administration or Deputy Director's area).

The Enforcement Team (currently of one staff and one intern) provide enforcement functions only for recalcitrant and highly resistant systems. The Compliance Tracking List of January 8, 1992 lists 404 cases with compliance enforcement action in some stage of completion. A close analysis of that report reveals that:

- 201 cases are already closed
- 59 of the 404 cases (of which 24 are closed) are EPA cases
- 51 are Maricopa County Health Department cases, some closed

- 27 are Pima County Health Department cases, some closed
- 16 are Yuma County Health Department cases, some closed
- 65 cases are assigned to Team Leader Elizabeth Ridgely, of which 28 are closed
 - 9 are either in court, or nearing closure
 - 9 essentially involve only operator certification or operation and maintenance issues
 - 16 involve bacteriological or radiological contaminants, thus posing serious corrective issues
 - 2 involve corrosivity or inorganic substance violations, requiring moderate corrective action
 - 3 of the above have had civil penalty calculations already submitted to the Attorney General's office.

Impact

With the work load distributed as called for under the present organization chart, assuming the Data Unit ceased all functions except those directly related to data entry and extraction, the Enforcement Team would be impacted with a considerably greater work load.

In the present functional alignment, however, that work load is shared, the customer receives prompt service and notice of minor issues, and there is very direct (and apparently well received, in most cases) feedback from the system-customers when operations of their facilities have a problem.

If the functions as indicated in the new organization structure were fully implemented, that immediate response service would be lacking, and all violations appearing in the laboratory reports would simply be entered into the data base, with the Enforcement Team then needing to await its weekly publication, and then read and analyze that data (some 27 pages at present) to note a system was experiencing difficulties.

Recommendations

The following actions are recommended:

- Re-unite the Drinking Water Data Unit and the Drinking Water Compliance Unit, thus establishing again just two Units within the Compliance Section
- Ensure the adequate cross-training of all staff assigned to this Unit (excluding, perhaps, the clerical staff) so routine non-compliance issues may be corrected at the earliest, and simplest, level
- Remove technical review responsibilities from the Unit, allowing time now spent in those activities to be more directly expended in enforcement actions against resistant system operators
- Create an Operator Certification Team, reporting directly to the Section Manager, in this Compliance Section (see Recommendation entitled "Program Coordination – Certification Section – Placement," for the support of this recommendation)
- In analyzing true work loads existing, reduce Unit staffing to only that level necessary to accomplish the task, by:
 - Eliminating an extra (filled) Unit Manager (Environmental Program Supervisor) position, grade 22, at \$52,150
 - Eliminating the "proposed" EDP Programmer Analyst III position, grade 20, at \$43,430
 - Eliminate two vacant Clerk Typist III positions, grade 11, at \$17,558 each (total \$35,116)
 - Eliminate five vacant Environmental Health Specialist II positions, grade 19, at \$38,926 each (total \$194,630)
 - Eliminate one vacant Environmental Engineer (PE), grade 21, at \$47,729.

Benefits

The benefits to be realized from adopting these recommendations include:

- A better streamlined, more efficient organization with better avenues of communication between its members who are all involved in the same aspect of the Department's work
- Continuing, and improved, immediate response to system-customers who are experiencing temporary difficulties with their system, or sampling/testing modalities
- Cost savings amounting to \$52,150 annually
- Cost avoidance amounting to \$320,905 annually
- Federal funds \$147,560; State funds \$225,495.

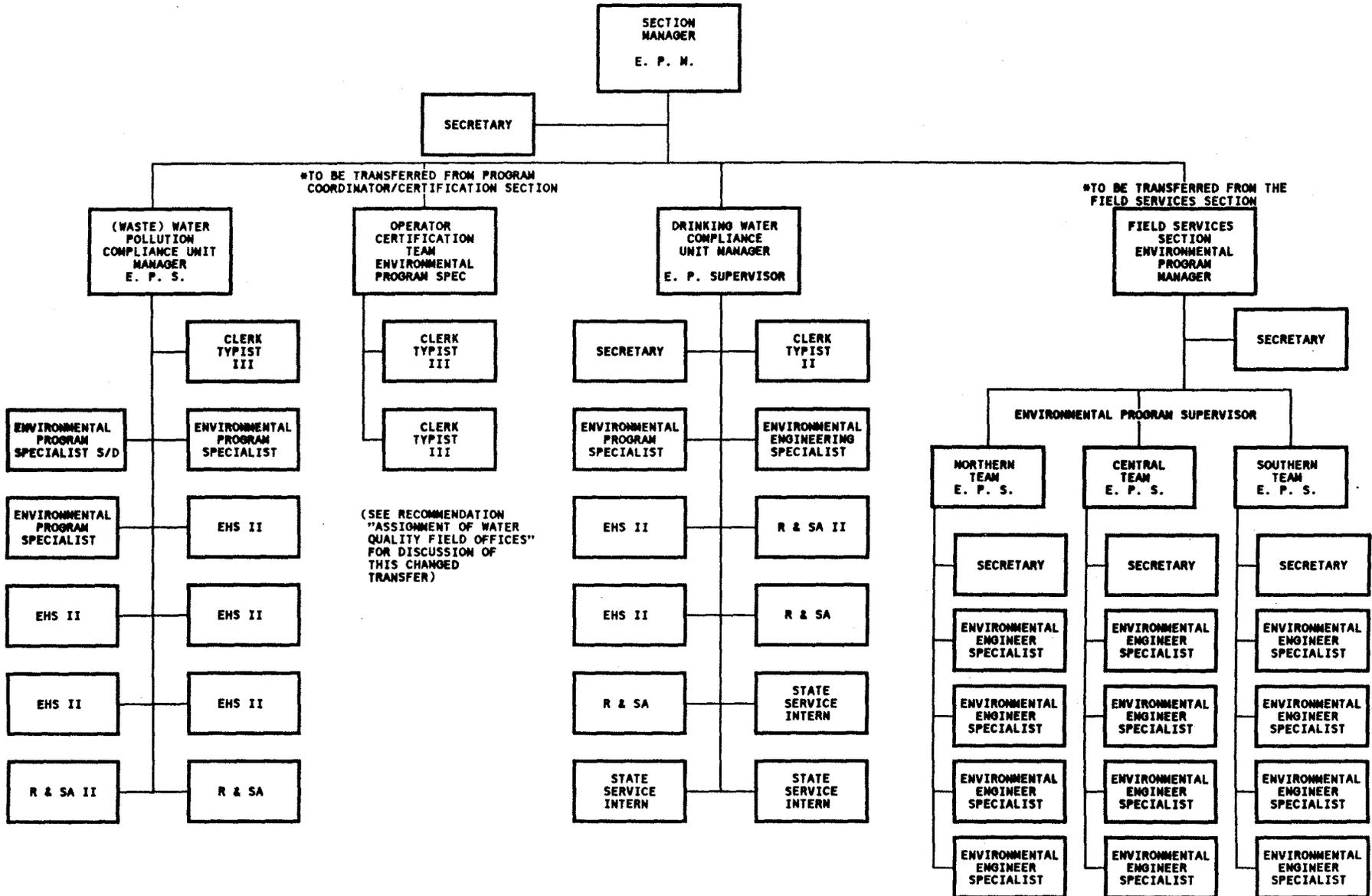
Implementation

Implementation of these recommendations involves:

- An administrative decision to carry out the recommended reorganization (see Exhibit 51, Compliance Section, OWQ, Proposed Organizational Chart)
- Procurement, funding and scheduling of requisite training for staff in need of such
- Adequate equipment, especially in the electronic data area, for all staff to have that necessary to their functions
- Re-writing of job descriptions and regulations by which this Section now operates
- Time frame: Approximately 60 days.

**PROPOSED ORGANIZATIONAL CHART
OFFICE OF WATER QUALITY
COMPLIANCE SECTION**

DEQ - 161



BOND SUBMISSION IN LIEU OF FINANCIAL DATA

Current Situation

Two major deficiencies are most common in the applications received for Aquifer Protection Permits by all Units of the Plan Review and Permits Section. These are failure to include the application fee, ranging from \$1,200 to \$3,400, and deficiencies in submitting the financial data required by the department. The most common, and time consuming to rectify, is the inadequacy or total lack of required financial data.

A part of the problem is that requirements set forth by statute and by the department are not as clear and specific as applicants require, for them to provide compliance. Another part is the reluctance of the applicants to reveal such sensitive data concerning the operations of their facilities and/or businesses.

Staff time is consumed in attempting to analyze data submitted to determine the company's adequacy to carry out the project for which they are seeking a permit. This review involves many hours a significant number of the hours expended in processing an application being spent on this issue. Personnel, in addition to the permit engineer, such as the Executive Consultant II in the Administration Division, several staff of the Permits Section, and perhaps an Assistant Attorney General or an outside financial consultant are involved in these determinations.

Impact

At the pay grades involved (average: 20), the time consumed in efforts to obtain the required data, as well as analyzing it's adequacy, is very costly.

Nor does address the time consumed in waiting for customer response, or the ill will generated by the continual requests for data, the "telephone tag" time lost on both sides, and the back up of application completions created by waiting for and "chasing down" this required information.

Under provisions of A.R.S. 49-243 "the applicant for an individual permit may be required ..." (emphasis added) to provide information on a number of issues effecting the permit issuance and the facility operation. This section contains no specific requirement for financial data, with sub-section 9 merely stating "Any other relevant information the director may require."

HB 2060, as introduced in the current legislative session, provides a selection of some 14 alternate but fairly precise methods by which an applicant may establish the required financial responsibility.

Recommendations

It is recommended the following actions be taken:

- Passage of the cited portions of H.B. 2060 (amending A.R.S. 49770) be encouraged and supported
- Assurance, as/if needed, that such language applies to all APP applications
- Clarify in Policy and Procedure which DEQ staff are responsible for, and authorized to, obtain and analyze the required financial responsibility data.

Benefits

The benefits to be obtained from adoption of this recommendation include:

- Savings in the processing time of applications
- Acceleration of the processing of the reported 1,200 existing facilities required by A.R.S. 49-241 to be issued A.P.P.s by the year 2001
- Freeing existing Permit staff to more expeditiously process current applications, thereby diminishing the backlogs and providing better customer service.

Implementation

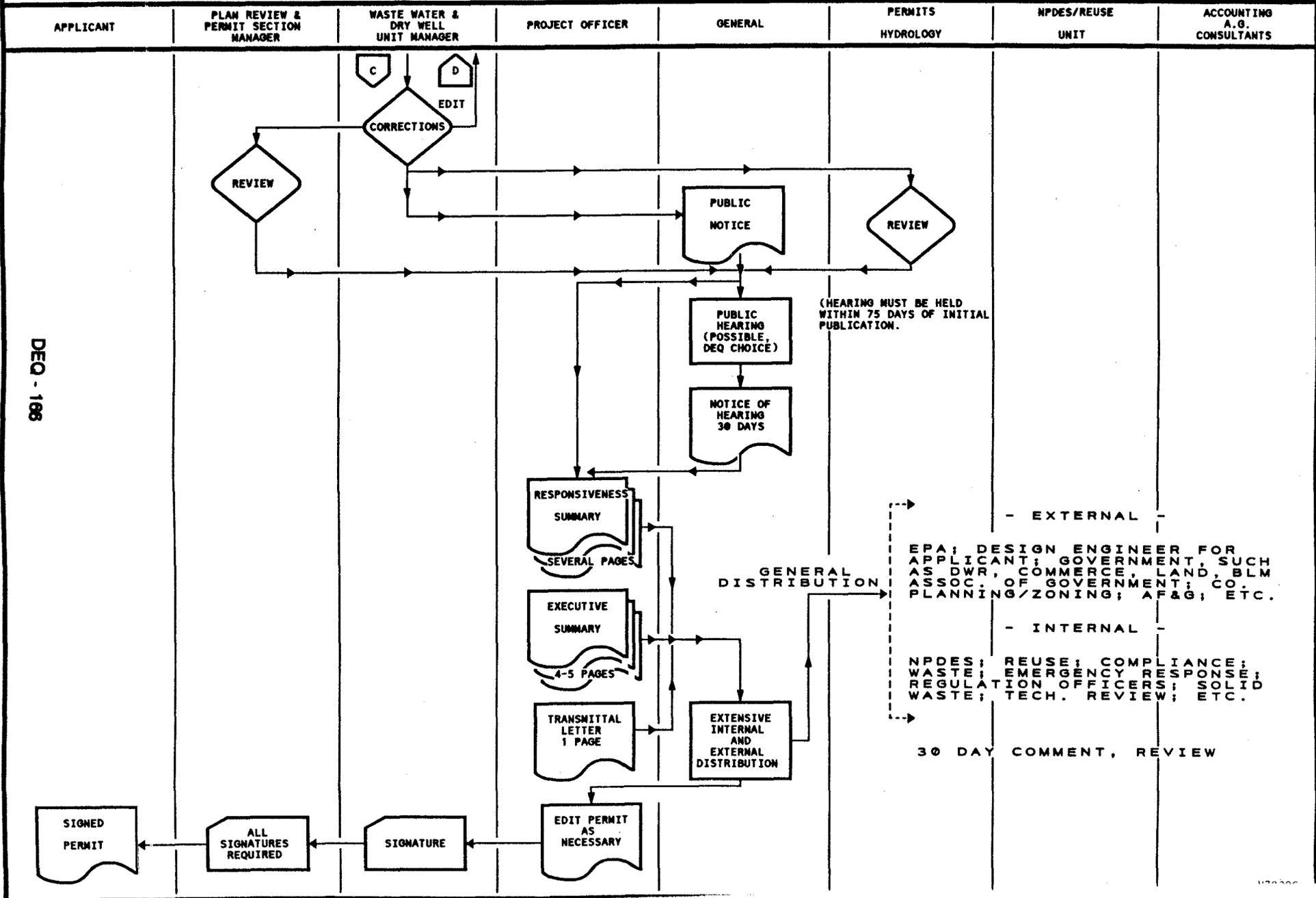
Implementation of this Recommendation requires:

- Passage of these cited amendments, applicable to all APP applications
- Writing, or editing, of existing Rules and Department regulations and policies will take approximately 90 days to implement.

**OFFICE OF WATER QUALITY - D.E.Q..
 PLAN REVIEW AND PERMIT SECTION
 APP APPLICATION PROCESS FLOW**

EXHIBIT 52

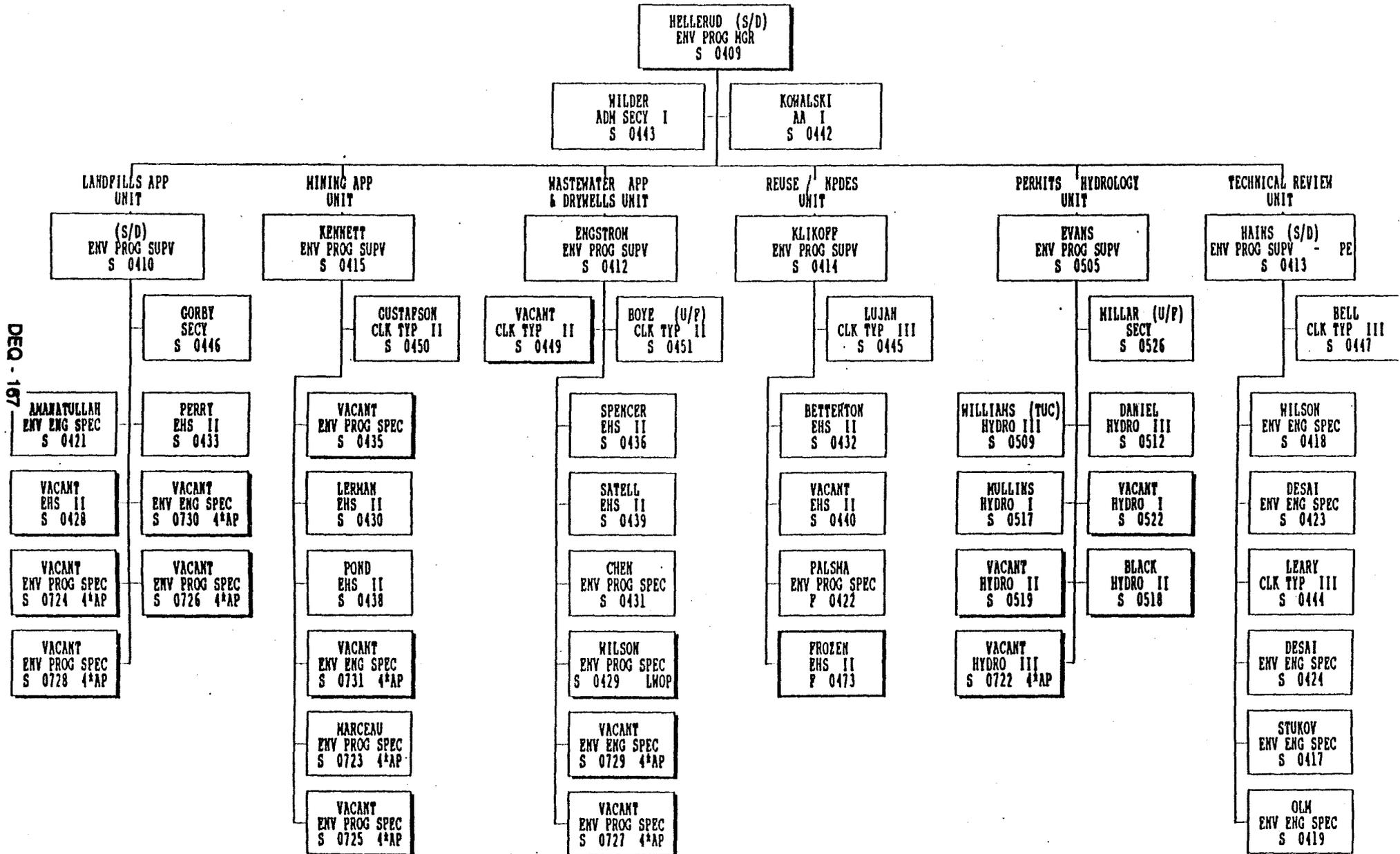
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DEQ - OFFICE OF WATER QUALITY
 PLAN REVIEW & PERMITS SECTION
 JANUARY 01, 1992

EXHIBIT 53



DEQ - 167

the pollutant is a toxic pollutant, that the pollutant has been, or may in the future be, detected in any of the state's drinking water aquifers and that there exists technical information on which a numeric standard might reasonably be based. Within one year of the commencement of the rule making proceeding, the director shall either adopt a numeric standard or make and publish a finding that, pursuant to subsection B of this section, the development of a numeric standard is not possible. The decision to not adopt a numeric standard shall, for purposes of judicial review, be treated in the same manner as a rule adopted pursuant to title 41, chapter 6.

D. Within one year from the reclassification of an aquifer to a non-drinking water status, pursuant to § 49-224, the director shall adopt water quality standards for that aquifer. For any pollutants which were not the basis for the reclassification, the applicable standard shall be identical with the standard for those pollutants adopted pursuant to subsections A and B of this section. For any pollutants which were the basis for reclassification, the standard shall be sufficient to achieve the purpose for which the aquifer was reclassified but shall minimize unnecessary degradation of the aquifer by taking into consideration the potential long-term uses of the aquifer and the short-term and long-term benefits of the activities resulting in discharges into the aquifer.

E. The director shall adopt water quality standards for an aquifer for which a petition has been submitted pursuant to § 49-224, subsection D sufficient to achieve the non-drinking water use for which that aquifer was classified, taking into consideration the potential long-term uses of that aquifer and the short-term and long-term benefits of the discharging activities creating that aquifer.

49-224. Aquifer identification, classification and reclassification

A. Not later than June 30, 1987 the director shall, by rule, identify and define the boundaries of all aquifers in this state utilizing, to the maximum extent possible, data available from the department of water resources.

B. All aquifers in this state identified and defined under subsection A of this section and any other aquifers subsequently discovered, identified and defined shall be classified for drinking water protected use unless the classification is changed in the manner provided in subsection C of this section.

C. The director, after consulting with the appropriate groundwater users advisory council established pursuant to title 45, chapter 2, article 2 if the aquifer is in an active management area, and a public hearing held pursuant to § 49-208, may change the classification of an aquifer or part of an aquifer for a protected use other than drinking water on making all of the following findings:

1. The identified aquifer or part of an aquifer is or will be so hydrologically isolated from other aquifers or other parts of the same aquifer that there is no reasonable probability that poorer quality water from the identified aquifer or part of an aquifer will cause or contribute to a violation of aquifer water quality standards in other aquifers or parts of the same aquifer.

2. Water from the identified aquifer or part of an aquifer is not being used as drinking water.

3. The short-term and long-term benefits to the public that would result from the degradation of the quality of the water in the identified aquifer or part of an aquifer below standards established pursuant to

§ 49-223, subsections A and B would significantly outweigh the short-term and long-term costs to the public of such degradation. Benefits and costs to be considered include:

D. Owner charges are may petition aquifer for may, by rule water use subsection

E. The duration in process § 49-208 am a location as near as practicable to the aquifer proposed for reclassification.

49-225. Water quality monitoring

A. The director shall, with the advice and cooperation of the Arizona department of agriculture and the director of water resources, conduct ongoing monitoring of the waters of the state including the state's navigable waters and aquifers to detect the presence of new and existing pollutants, determine compliance with applicable water quality standards, the effectiveness of best management practices, agricultural best management practices and best available demonstrated control technologies, evaluate the effects of pollutants on public health or the environment and determine water quality trends.

B. The director shall maintain a statewide data base of groundwater and soils sampled for pollutants. All agencies shall submit to the director, in a timely manner, the results of any groundwater or soils sampling for pollutants and the results of any groundwater or soils sampling that detect any pollutants.

C. The director shall establish minimum requirements and schedules for groundwater and soils sampling that will ensure precise and accurate results. The requirements shall be distributed to all agencies that conduct sampling. All sampling conducted shall meet the minimum requirements established pursuant to this subsection.

D. The director shall annually report the following information to the governor, the president of the senate, the speaker of the house of representatives, the Arizona department of agriculture and the director of water resources for the preceding calendar year:

1. The number of wells sampled for pollutants, the location of the wells from which the samples were taken, the well numbers, if available, and the agencies responsible for drawing and analyzing the samples.

2. The number of samples with detectable levels of pollutants, the location of the wells from which the samples were taken, the well numbers, if available, and the agencies responsible for drawing and analyzing the samples.

3. The number, type and outcomes, by category, of enforcement actions taken.

ARTICLE 3. AQUIFER PROTECTION PERMITS

49-241. Permit required to discharge

A. Unless otherwise provided by this article, any person who discharges or who owns or operates a facility that discharges shall obtain an aquifer protection permit from the director.

B. Unless exempted under section 49-250, the following are considered to be discharging facilities and

shall be operated pursuant to either an individual permit or general permit, including agricultural general permits, under this article:

- 1. Surface impoundments including holding, storage settling, treatment or disposal pits, ponds and lagoons.
- 2. Solid waste disposal facilities.
- 3. Injection wells.
- 4. Land treatment facilities.
- 5. Facilities which add a pollutant to a salt dome formation, salt bed formation, dry well or underground cave or mine.
- 6. Mine tailings piles and ponds.
- 7. Mine leaching operations.
- 8. Septic tank systems with a capacity of greater than two thousand gallons per day.
- 9. Groundwater recharge projects and underground storage and recovery projects.
- 10. Point source discharges to navigable waters.
- 11. Sewage or sludge ponds and wastewater treatment facilities.

C. Not later than January 1, 1992, the director shall publish a list of the names and locations of existing facilities that are required to obtain an aquifer protection permit. The list shall contain deadlines for the submittal of applications for aquifer protection permits, based on the degree of risk to the public health and welfare and the environment and based on a work plan of the director designed to process all applications for an aquifer protection permit no later than January 1, 2001.

D. Beginning January 1, 1993, the director shall publish annually, the fee schedule for aquifer protection permit applications and a list of the names and locations of the facilities that have filed applications for aquifer protection permits, with a description of the status of each application. 1991

49-241.01. Groundwater protection permit facilities; schedule; definition

A. The director shall complete the issuance or denial of aquifer protection permits for all groundwater protection permit facilities on the following schedule:

- 1. By January 1, 1995, at least one-third of all groundwater protection permit facilities.
- 2. By January 1, 1998, at least two-thirds of all groundwater protection permit facilities.
- 3. By January 1, 2001, all groundwater protection permit facilities.

B. The failure by the director to issue or deny an aquifer protection permit for a groundwater protection permit facility within the time prescribed by this section does not excuse a person from continuing to comply with all statutory and regulatory requirements applicable to that person's facility.

C. For purposes of this section, "groundwater protection permit facility" means either of the following:

- 1. A facility for which a groundwater quality protection permit was issued pursuant to the Arizona administrative code and for which an aquifer protection permit has never been issued.
- 2. A facility for which a notice of disposal was filed pursuant to the Arizona administrative code and for which an aquifer protection permit has never been issued. 1991

49-242. Procedural requirements for individual permits; annual registration of permittees; fee

A. The director shall prescribe, by rule, requirements for issuing, denying, suspending or modifying individual permits, including requirements for sub-

mitting notices, permit applications and any additional information necessary to determine whether an individual permit should be issued, and shall prescribe conditions and requirements for individual permits.

B. Each owner of an injection well, a land treatment facility, a dry well, a septic tank system with a capacity of more than two thousand gallons per day or a facility which discharges to navigable waters to whom an individual permit is issued shall register the permit with the director each year and pay an annual registration fee based on the daily discharge of pollutants pursuant to subsection D of this section.

C. Each owner of a surface impoundment, a facility which adds a pollutant to a salt dome formation, salt bed formation, underground cave or mine, a mine tailings pile or pond, a mine leaching operation, a sewage or sludge pond or a wastewater treatment facility to whom an individual permit is issued shall register the permit with the director each year and pay an annual registration fee based on the daily influent of pollutants pursuant to subsection D of this section.

D. [REDACTED] all be determined as follows:

DISCHARGE OR INFLUENT PER DAY UNDER THE PERMIT (IN GALLONS)	ANNUAL FEE
2,000 to 9,999	\$ 25
10,000 to 99,999	100
100,000 to 999,999	1,000
1,000,000 to 9,999,999	3,000
10,000,000 or more	5,000

E. The director shall prescribe the procedures to register the permit and collect the fee under this section. [REDACTED]

[REDACTED] established by section 49-282 and may authorize expenditures from the fund, pursuant to section 49-282, subsection C, paragraph 6, to pay the reasonable and necessary costs of administering the registration program. 1990

49-243. Information and criteria for issuing individual permit

A. The director shall consider, and the applicant for an individual permit may be required to furnish with the application, the following information:

- 1. The design of the discharge facility.
- 2. A description of how the facility will be operated.
- 3. Existing and proposed pollutant control measures.
- 4. A hydrogeologic study defining and characterizing the discharge impact area, including the vadose zone.
- 5. The use of water from aquifers in the discharge impact area.
- 6. The existing quality of the water in the aquifers in the discharge impact area.
- 7. The characteristics of the pollutants discharged by the facility.
- 8. Any other relevant federal or state permits issued to the applicant.
- 9. Any other relevant information the director may require.

B. The director shall issue a permit to a person for a facility other than a recharge project or an underground storage and recovery project if the person

demonstrates that either paragraphs 1 and 2 or paragraphs 1 and 3 of this subsection will be met:

1. That the facility will be so designed, constructed and operated as to ensure the greatest degree of discharge reduction achievable through application of the best available demonstrated control technology, processes, operating methods or other alternatives, including, where practicable, a technology permitting no discharge of pollutants. In determining best available demonstrated control technology, processes, operating methods or other alternatives the director shall take into account site specific hydrologic and geologic characteristics and other environmental factors, the opportunity for water conservation or augmentation and economic impacts of the use of alternative technologies, processes or operating methods on an industry-wide basis. However, a discharge reduction to an aquifer achievable solely by means of site specific characteristics does not, in itself, constitute compliance with this paragraph. In addition, the director shall consider the following factors for existing facilities:

- (a) Toxicity, concentrations and quantities of discharge likely to reach an aquifer from various types of control technologies.
- (b) The total costs of the application of the technology in relation to the discharge reduction to be achieved from such application.
- (c) The age of equipment and facilities involved.
- (d) The industrial and control process employed.
- (e) The engineering aspects of the application of various types of control techniques.
- (f) Process changes.
- (g) Non-water quality environmental impacts.
- (h) The extent to which water available for beneficial uses will be conserved by a particular type of control technology.

2. That pollutants discharged will in no event cause or contribute to a violation of aquifer water quality standards at the applicable point of compliance for the facility.

3. That no pollutants discharged will further degrade, at the applicable point of compliance, the quality of any aquifer that already violates the aquifer quality standard for that pollutant.

C. The director shall issue a permit to a person for a recharge project or an underground storage and recovery project proposed under title 45, chapter 2, article 13 or title 45, chapter 3 if the person demonstrates that the facility will be so designed, constructed and operated as to ensure that the project will not cause or contribute to the violation of any standard adopted pursuant to section 49-223 at the applicable point of compliance for the facility.

D. With respect to the following pollutants, the permit applicant for a new facility must meet the criteria of subsection B, paragraph 1 of this section to limit discharges to the maximum extent practicable regardless of cost:

1. Any organic substance listed by the secretary of the department of health and human services pursuant to 42 United States Code section 241 (b)(4), as known to be carcinogens or reasonably anticipated to be carcinogens.
2. Any organic substance listed in 40 code of federal regulations section 261.33(e), regardless of whether the substance is a waste subject to regulation under the resource conservation recovery act (P.L. 94-580; 90 Stat. 2795).
3. Any organic toxic pollutant that the director lists by rule after determining that minute amounts of that pollutant in drinking water will present a sub-

stantial short-term or long-term human health threat.

E. The director may, by rule, prescribe requirements for issuing a single permit applicable to all similar facilities under common ownership and located in a contiguous geographic area in lieu of an individual permit for each facility.

F. The director shall prescribe in the permit the following terms and conditions:

1. Monitoring requirements.
2. Record keeping and reporting requirements.
3. Contingency plan requirements.
4. Discharge limitations.
5. Compliance schedule requirements.
6. Post-closure plan.
7. Alert levels which, when exceeded, may require adjustments of permit conditions or appropriate actions as are required by the contingency plans.
8. Such other terms and conditions as the director deems necessary.

G. The director may include in an aquifer protection permit for an existing facility the requirement that the owner or operator of the facility undertake a remedial action, as defined in section 49-281, to prevent, minimize or mitigate damage to the public health or welfare or to the waters of the state resulting from a discharge that occurred before August 13, 1986, if the following conditions are met:

1. The selection of remedial action including the level and extent of cleanup was determined according to the criteria in section 49-282, subsection E and the rules adopted pursuant to that subsection.
2. The pollutant that was discharged constituted a hazardous substance.

H. The director may include in an aquifer protection permit as a condition the mitigation measures described in an order issued under section 49-286.

I. The director may deny a permit for a facility if he determines that the applicant is incapable of fully carrying out the terms and conditions of the permit, including any conditions that require monitoring or installing and maintaining discharge control measures. The director may require the applicant to furnish information, such as past performance, including compliance with or violations of similar laws or rules, and technical and financial competence, relevant to its capability to comply with the permit terms and conditions. Financial information required to be supplied under this subsection is confidential.

J. The director shall require an applicant for an individual permit to submit evidence that the discharging facility complies with applicable municipal or county zoning ordinances and regulations. The director shall not issue the permit unless it appears from the evidence submitted by the applicant that the facility complies with the applicable zoning ordinances and regulations.

49-244. Point of compliance

The director shall designate a point or points of compliance for each facility receiving a permit under this article. The point of compliance is the point at which compliance with aquifer water quality standards shall be determined. The point of compliance shall be a vertical plane downgradient of the facility that extends through the uppermost aquifers underlying that facility. The point of compliance shall be determined as follows:

1. Except as provided in paragraph 2, for a pollutant that is a hazardous substance the point of compliance is the limit of the pollutant management area. The pollutant management area is the limit

ESTABLISHING DEADLINE FOR DEFICIENCY RESPONSES

Current Situation

The permit issuance process, in all areas of the Department of Environmental Quality, has consistently been reported as being seriously delayed while the permit officer awaits a response from the facility seeking the permit.

Impact

Public perception, including that of the permit applicants, at present is that D.E.Q. is unexcusably slow in issuing various types of permits without a legitimate reason. While there are problems within the Agency (identified, with corrective recommendations, in other points), one of the more significant contributors to the slow issuance of a permit is the failure of the applicant to respond to deficiency letters.

The permitting process is not only slowed down because of this, but time is lost and wasted while permit engineers hold pending application files on their desks, waiting for the responses to return. When significantly delayed (more than six months or a year), there is a re-learning time which the permit officer must go through to re-familiarize himself with that application.

Such wasted time drives up the staffing requirements of the agency in order for it to issue a given number of completed permits. The more delay which exists, the more those delays slow down the completion of an application, the more staff will be needed (see Exhibit 55, APP Permit Writing Process, Flow Chart).

Recommendations

We recommend the following actions be taken:

- Legislation be submitted to allow a deadline by which a permit applicant must respond to a deficiency letter, by submitting the required information, or provide a time table for submission within ultimate limits acceptable to DEQ
- By this legislation allow the denial of an applicant's permit for failure to respond to the deficiencies in the required timely manner

- These revisions should incorporate provisions for an exception to be granted for reasonable cause
- Re-write DEQ Rules to reflect the above changes, and to require the permit writing staff to clearly state in the deficiency letter what information is missing, and what must be done to comply with application requirements.

(Reference also the Recommendation "Revision of Public Notice/Public Hearing Process.")

Benefits

The following benefits will accrue with adoption of this recommendation:

- Applicants will be required to respond in a timely manner to the completion of their applications
- The permitting process in all Divisions of the agency will be speeded up, with the decreased time loss resulting in more being accomplished with existing staff
 - Although no specific cost savings have been calculated in regard to this recommendation, the above discussion demonstrates that significant savings will be realized from its implementation
- Public perception of the agency's efficiency will be enhanced.

Implementation

Implementation will require the following:

- Drafting, and obtaining passage, of the necessary changes to impose the deadlines, with rejection of the permit for failure to comply

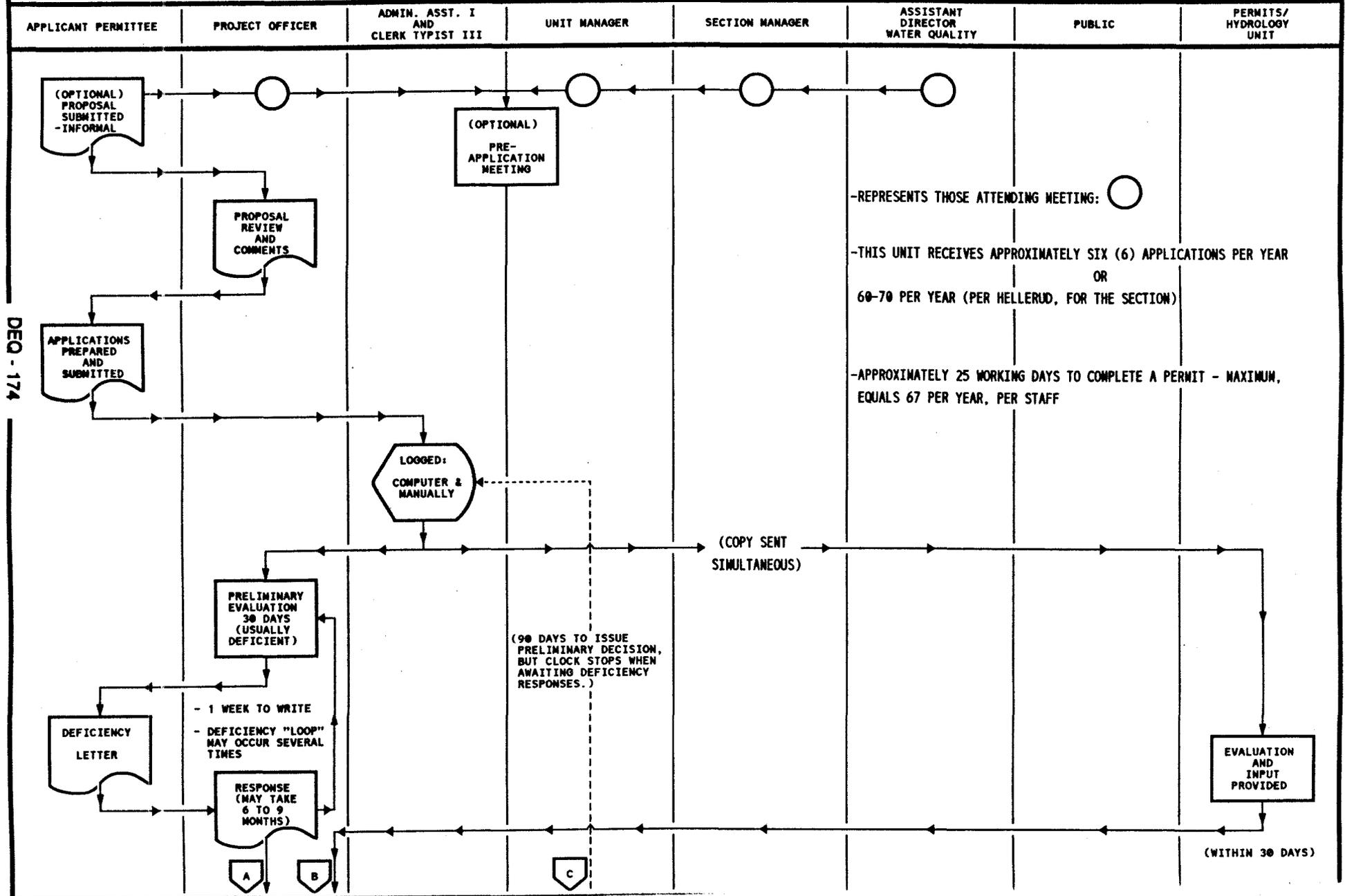
- **Implementing of the appropriate Rules concerning the deadlines, and extensions of them for showing of legitimate reasons**
- **Alteration of the permit application packages to incorporate these new regulations**
- **Time frame: Approximately 60 days.**

AQUIFER PROTECTION PERMIT WRITING PROCESS

EXHIBIT 55

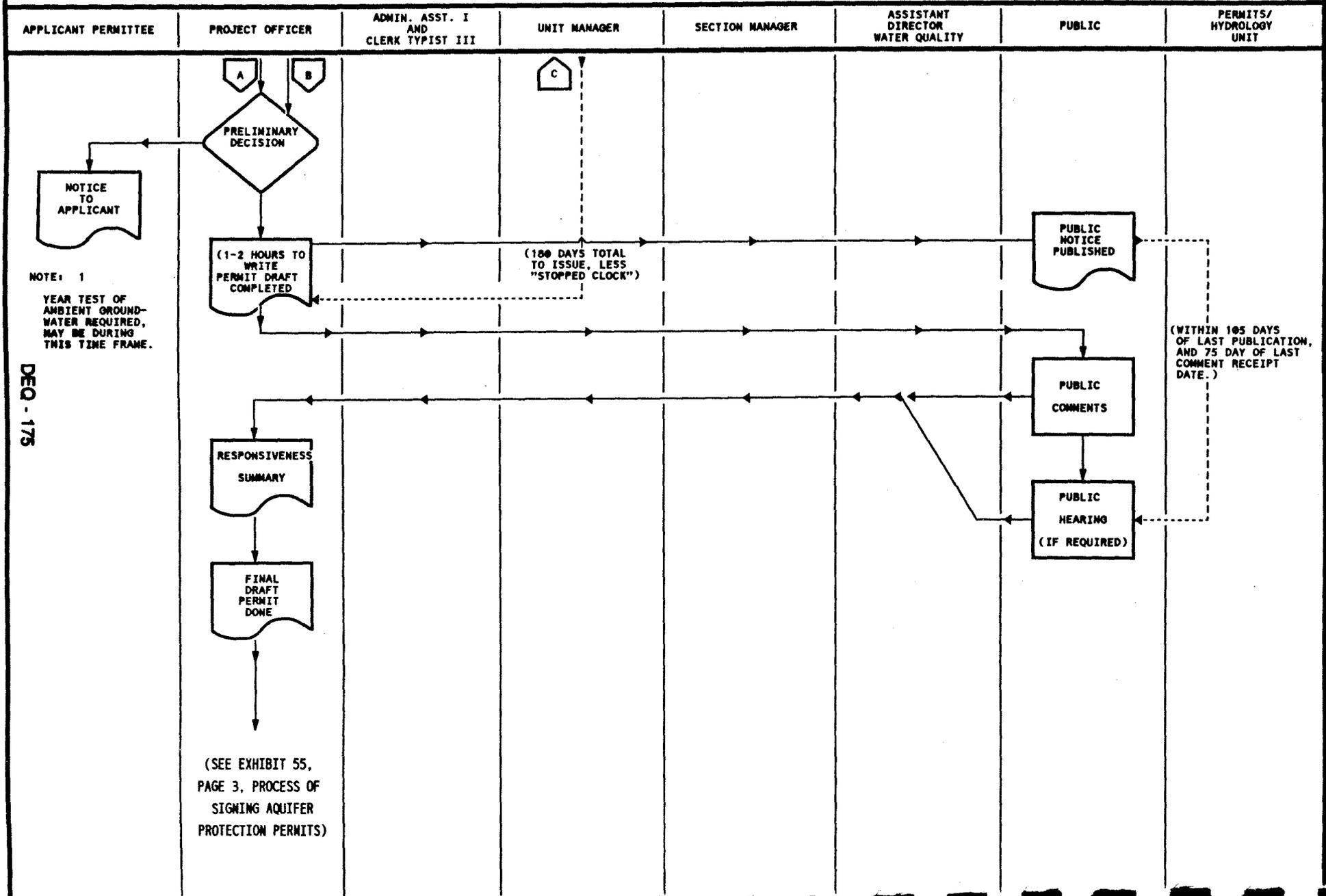
WATER QUALITY

PAGE 1 OF 4



AQUIFER PROTECTION PERMIT WRITING PROCESS

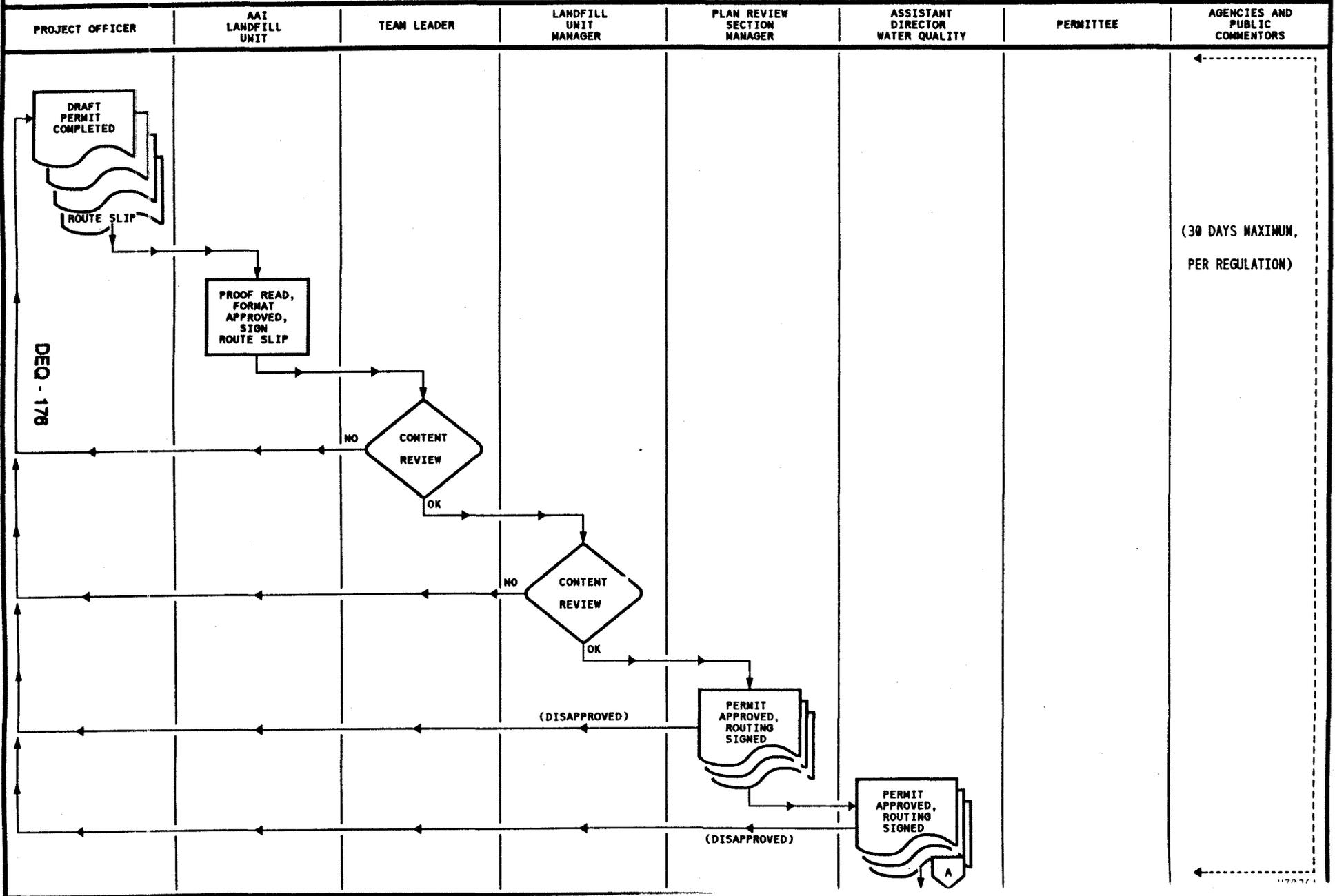
WATER QUALITY



**PROCESS OF SIGNING AQUIFER
PROTECTION PERMITS
WATER QUALITY DIVISION**

EXHIBIT 55

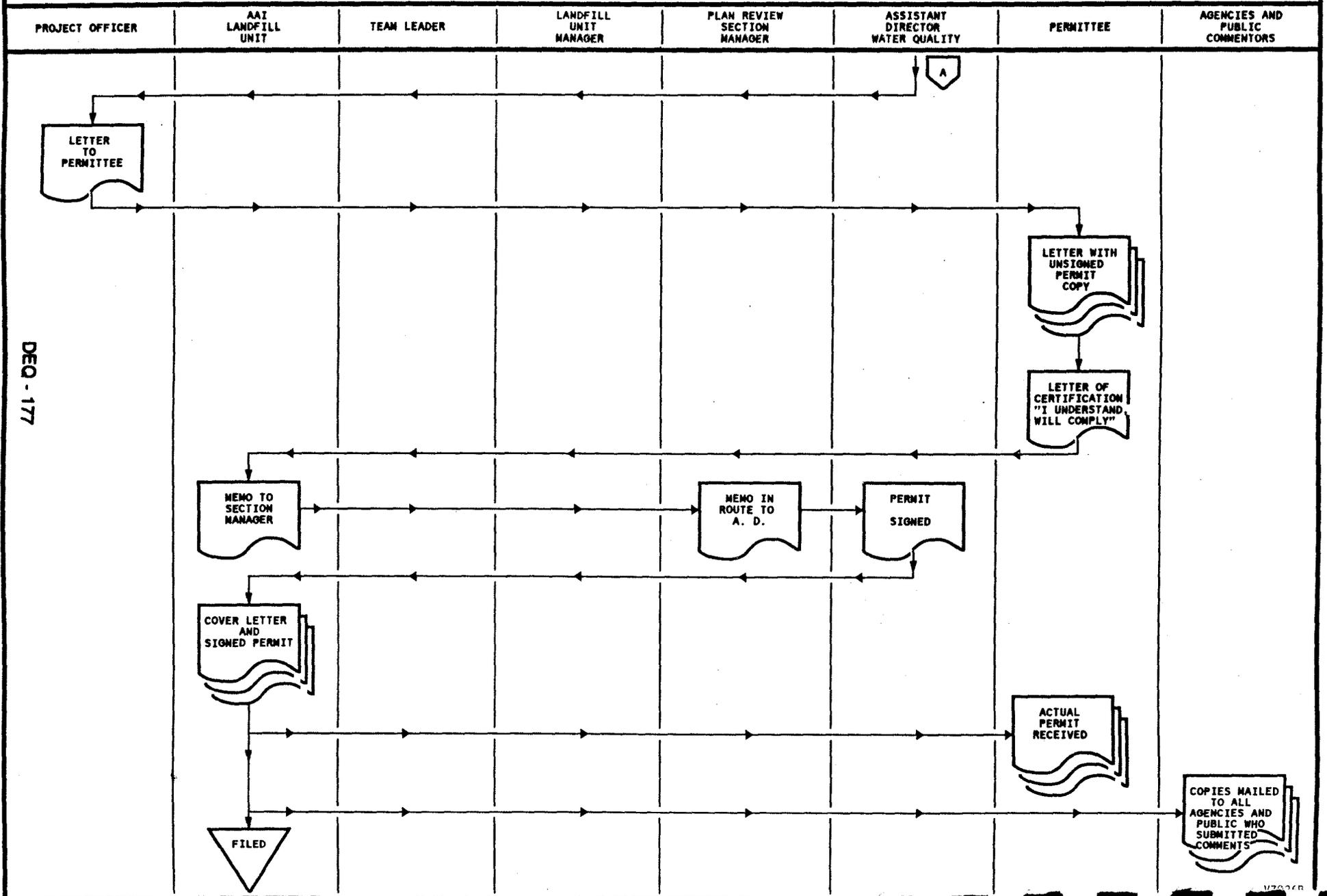
PAGE 3 OF 4



**PROCESS OF SIGNING AQUIFER
PROTECTION PERMITS
WATER QUALITY DIVISION**

EXHIBIT 55

PAGE 4 OF 4



DEQ - 177

V7024R

COMBINING UNITS IN PLANS REVIEW & PERMIT SECTION

Current Situation

The Water Quality Division's Plan Review and Permits Section is comprised of four primary permitting units, which have a combined present and vacant staffing of 33 positions. These include four Unit Managers (Environmental Program Supervisors, grade 22); four Environmental Engineer Specialists (grade 20); nine Environmental Program Specialists (grade 20); and six Environmental Health Specialists (grade 19); three Hydrologists III (grade 21); two Hydrologist II (grade 19) and two Hydrologist I (grade 17); plus one secretary, two Clerk Typist III and one Clerk Typist II (see Exhibit 56, Plan Review and Permit Section, Current Organizational Chart).

There further is a (waste water) Reuse/NPDES (National Pollution Discharge Emissions Standards) Unit which issues permits to the agricultural and other users of treated effluent and industrial wastes, and includes one federally funded staff who prepares permit applications under NPDES for review and granting by EPA.

These permitting Units are divided into topical categories, by which permits are granted for landfills, mining and industrial and waste water treatment plants, supported by the hydrology staff functions.

The reported major production of this Section for the nine months from October, 1990 through March, 1991, was the issuance of 16 Permits, 26 draft permits, 105 letters of deficiency, and 4 denied applications, working with a staff of approximately 12.

Impact

By separating these permitting functions into the four various units, the work load of the Section is divided into type-specific work areas, with an unnatural barrier to cooperation and assistance thus erected between the staff of these Units.

The original staff recommendation for the organization of this Unit was to have one Unit, with three Teams, simply designated "A," "B" and "C" Teams, with all staff cross-trained to perform all permitting functions arising in the Unit. This organization concept was rejected by the then-in place management staff, who are apparently no longer with DEQ.

Since it is not reasonably possible to project the number of applications which may be received in a year from mining, waste water treatment, industrial or landfill facilities, the arbitrary division of these duties into separate units has created a situation in which some staff may be working under a great work load, while others may essentially be doing very little.

Recommendations

It is recommended the following steps be taken:

- The Permit Units which are now segmented as Landfills, Mining, and Wastewater (& Dry wells) be recombined into a single "Water Permits Unit" of two Teams (see Exhibit 57, Plan Review and Permit Section, Proposed Organizational Chart) with staff cross training being provided to ensure all staff are capable of processing any type of application received
 - While applications may generally be assigned to those permit officers with specialized knowledge, such specialization should not prohibit them from working on permits outside that realm of expertise when needed.
- Relocate the dry wells responsibility by merging it with the NPDES Team. This essentially is just a registration function.
- "208 Reviews" are reviews of plans to ensure they are in compliance with the various associations of county governments master plans within each county, or group of counties. It is recommended to move the EHS II with 208 responsibilities from the present Landfills Applications Unit to this Team, but without the present M.I.S. responsibilities.
 - Designate the NPDES/Dry wells/208 staff as a special "team," rather than a Unit, with three specialty persons reporting directly to the Water Permits Unit Manager
- Incorporate reuse permitting in the new Water Permits Unit
- Eliminate the following positions:
 - Three Unit Supervisors - Environmental Program Supervisor (one vacant), grade 22

- One Hydrologist III (now vacant), grade 21
- Two Environmental Program Specialists (vacant), grade 20
- Two Environmental Health Specialist (vacant), grade 19
- Two Clerk Typist II, grade 9.

Furthermore, the following specific recommendations which are set forth in the APP Strategy document are fully supported by Project SLIM, and it is recommended they be carried out, as they are believed to be extremely beneficial to the Department. These include:

- Use of outside contractors to complete and finalize the BADCT documents, which will enhance their usability by applicants (Objective #2)
- Editing the "Application Guidance Manual"s to provide more site/task specific guidance to applicants, thus saving time in the pre-application meetings, and in the entire permitting process (Objective #3)
- Clear delineation of roles of the various participants in the permitting process (including staff of Water Permits, Hydrology, Compliance, Field Services, Remedial Projects, State Revolving Fund [WQARF], Non-point Source and Solid Waste), thereby enhancing communication and work process flow (Objective #4)
- Written procedures and directives need to be updated, clarified and made specific to the task, especially that of the manner in which review of permit applications are conducted, so consistency between permit officers becomes consistent (Objective #5)
- The remaining vacant EES and EPS positions be retained for backlog permits and compliance activities.

Benefits

The benefits to be realized from implementation of these recommendations include:

- Better utilization of staff throughout the application workload
- Smoother operation of the Unit, and coordination between it and other Department areas
- More consistent interpretation of requirements, and their implementation as they pertain to applications
- More consistent supervisory oversight of the total aquifer permit production process, by having a single supervisor over all those operations
- Savings of \$138,254 annually from the elimination of four positions
- Avoidance of \$264,591 annually by not retaining six positions
- State funds \$268,046; Other funds \$134,799.

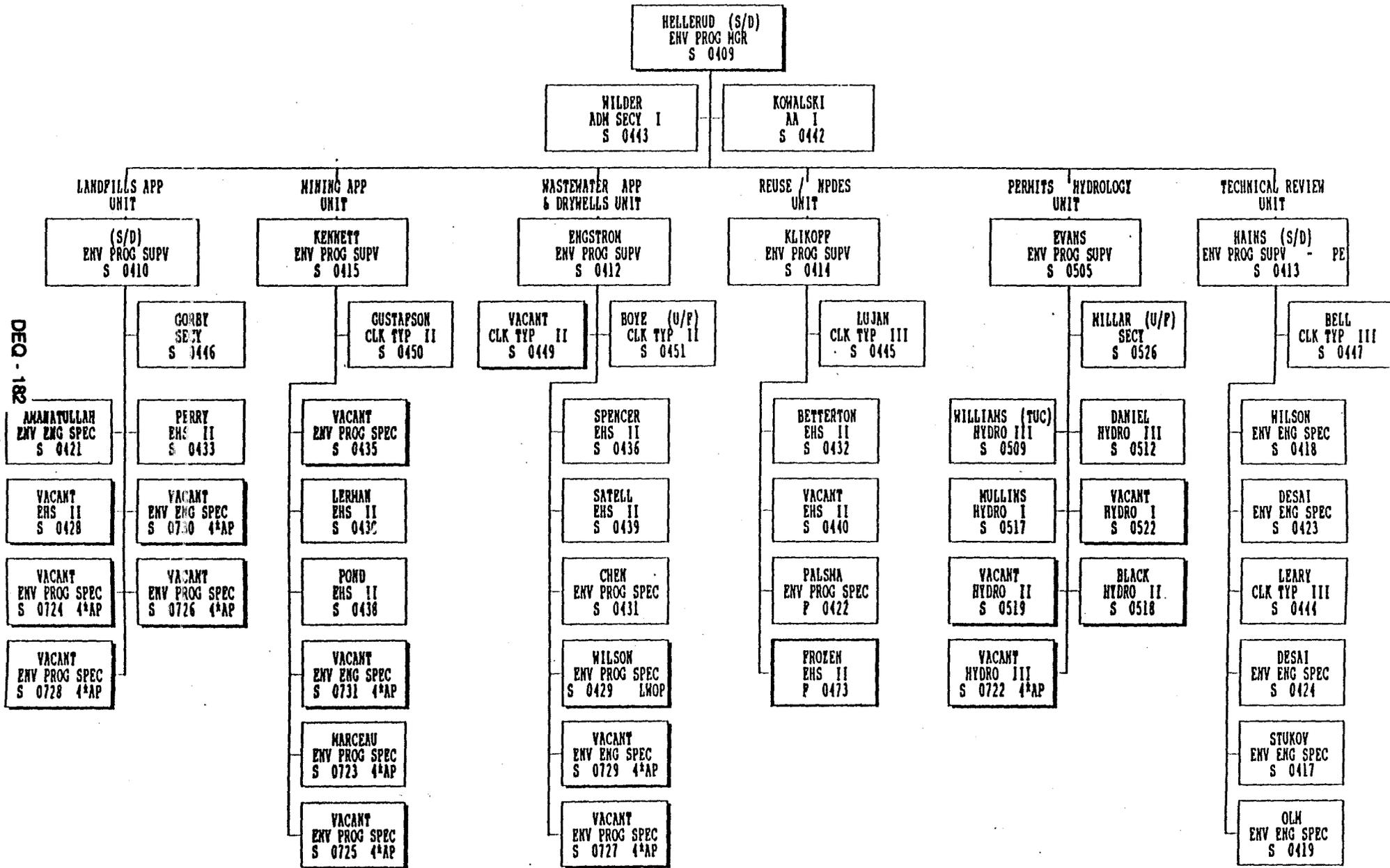
Implementation

Implementation will require:

- An administrative decision to carry out these recommendations, by
 - adoption of the new organization structure
 - definition and clarification of the new duties, by position
 - reassignment of displaced staff
 - ensuring the completion of those strategy steps noted
 - ensuring funding, from a Department-wide basis, for the requisite training needs of the newly structured Unit
- Time frame: Implementation will be approximately 60 days.

DEQ - OFFICE OF WATER QUALITY
 PLAN REVIEW & PERMITS SECTION
 JANUARY 01, 1992

EXHIBIT 56



DEQ - 182

CHART 3
AQUIFER PROTECTION PERMIT
INDIRECT PROGRAM COSTS

CATEGORY	AMOUNT
FTE	9
PERSONAL SERVICES	236,260
EXISTING POSTIONS:	
ENV PROG SUPV	41,160
ENV PROG SUPV	44,297
ENV PROG SUPV	45,406
ENV PROG SUPV	35,637
CLK TYP II	13,548
SECY	14,558
CLK TYP II	13,548
CLK TYP II	13,548
SECY	14,558
EMPLOYEE RELATED EXPENSES	54,340
OTHER OPERATING @ \$1,365/FTE X 35	47,775
PUBLIC HEARINGS	25,000
TRAVEL - IN-STATE @ \$900/FTE X 30	27,000
TRAINING - \$500/FTE X 30 + \$100/FTE X 5	15,500
TOTAL INDIRECT PROGRAM EXPENSES	405,875

DEQ-184

INDIRECT ADMINISTRATIVE COSTS

CATEGORY	AMOUNT
DIRECT PROGRAM COSTS:	
PERSONAL SERVICES	770,448
EMPLOYEE RELATED EXPENSES	177,203
INDIRECT PROGRAM COSTS:	
PERSONAL SERVICES	236,260
EMPLOYEE RELATED EXPENSES	54,340
TOTAL PERSONNEL/ERE COSTS SUBJECT TO RATE	1,238,251
TOTAL INDIRECT ADMINISTRATIVE EXPENSES TO BE INCLUDED IN RATE SETTING (47.70%)	590,646

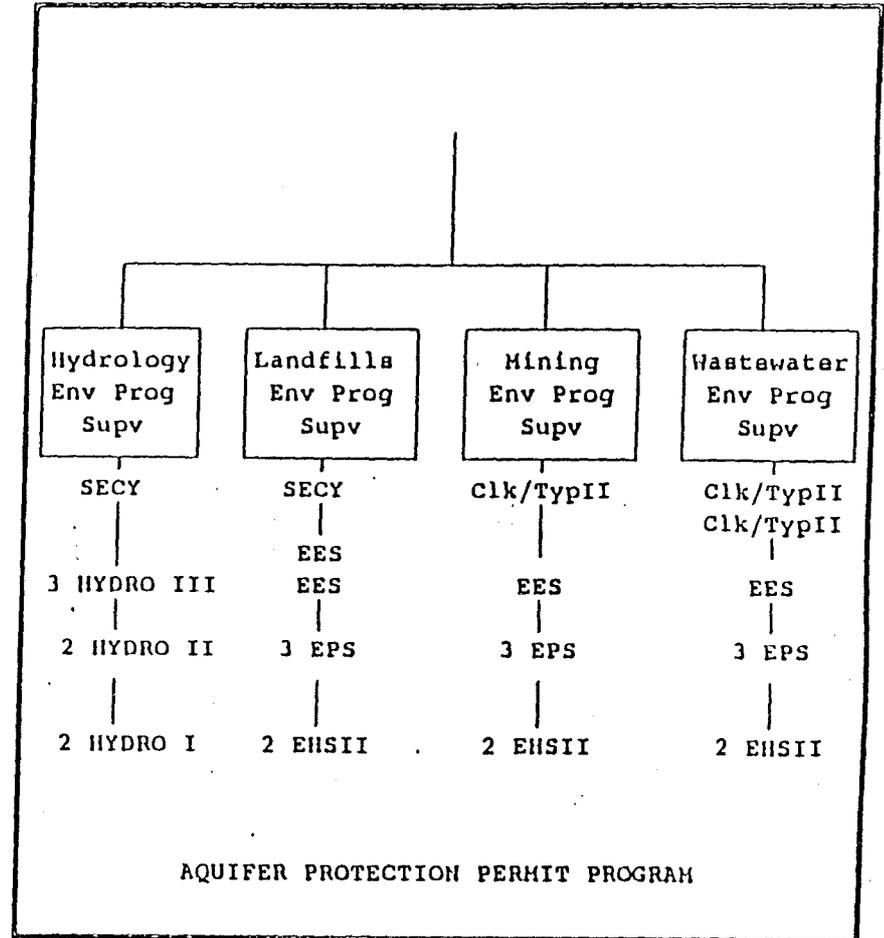


CHART 1

AQUIFER PROTECTION PERMIT
HOURLY RATE CALCULATION

BILLABLE HOURS CALCULATION:

TOTAL WORK HOURS PER FTE -----	2,096
LESS: HOLIDAYS (10 DAYS) -----	(80)
ANNUAL LEAVE (12 DAYS) -----	(96)
SICK LEAVE (12 DAYS) -----	(96)
BREAKS (1/2 HR/DAY X 262 DAYS) -----	(131)
TRAVEL HOURS -----	(60)
TOTAL BILLABLE HOURS PER FTE -----	1,633
<hr/>	
BILLABLE HOURS-APP PROGRAM STAFF (26 FTE)-----	42,458
ADD: FINANCIAL CONSULTANT BILLABLE HOURS-----	760
<hr/>	
TOTAL BILLABLE HOURS -----	43,218

TOTAL DIRECT AND INDIRECT APP PROGRAM COSTS:

CATEGORY	AMOUNT
TOTAL DIRECT PROGRAM EXPENSES -----	970,451
TOTAL INDIRECT PROGRAM EXPENSES -----	405,875
TOTAL INDIRECT ADMINISTRATIVE EXPENSES TO BE INCLUDED IN RATE SETTING (47.70%) -----	590,646
<hr/>	
TOTAL DIRECT & INDIRECT APP COSTS -----	1,966,972

RATE PER BILLABLE HR DIRECT & INDIRECT APP PROGRAM COSTS

CATEGORY	AMOUNT
DIRECT PROGRAM EXPENSES -----	\$22.45
INDIRECT PROGRAM EXPENSES -----	9.39
INDIRECT ADMINISTRATIVE EXPENSES -----	13.67
<hr/>	
PROPOSED RATE PER BILLABLE HOUR -----	\$45.51

CHART 2

EXHIBIT 58

AQUIFER PROTECTION 2 OF 2 PAGES
DIRECT PROGRAM COSTS

CATEGORY	AMOUNT
FTE (Full-time employee)	26
PERSONAL SERVICES	770,448
<hr/>	
EXISTING:	
Env Engineering Specialist	34,117
Env Program Specialist	31,789
Env Health Specialist II	26,442
EHS II	27,103
EHS II	26,442
EHS II	25,303
EHS II	31,016
EPS	29,680
ENS II	25,303
EPS	31,016
Hydrologist III	33,658
HYDRO I	21,595
HYDRO I	21,595
HYDRO III	45,406
HYDRO II	26,457
HYDRO II	26,457
SUBTOTAL	463,379
<hr/>	
NEW:	
EPS	29,680
EES	32,648
EES	32,648
EES	32,648
HYDRO III	31,045
SUBTOTAL	307,069
<hr/>	
EMPLOYEE RELATED EXPENSES	
<hr/>	
FINANCIAL CONSULTANT FEES	
<hr/>	
TOTAL DIRECT PROGRAM EXPENSES	

DEQ - 186

PESTICIDES UNIT

Current Situation

The 1986 Environmental Quality Act directed DEQ to establish a Pesticide Contamination Prevention Program designed to identify those pesticides that have the potential to pollute groundwater. The Pesticide Unit is responsible for administering this program. Part of the Pesticide Unit, four FTE equivalent positions, one of which is vacant and the other three filled, focus on monitoring soil and water in the agricultural basins of the state where these pesticides are used. Their objective is to determine if these pesticides (mentioned on the Groundwater Protection list) have migrated into groundwater. Exhibit 59, Water Assessment Section, Current Organizational Chart, shows the four positions in the Unit that are involved in the actual monitoring part of the program.

The Pesticides Unit plans to take approximately 150 samples, 90 in water and 60 in soil this coming year. Water samples will come from existing basin wells and the soil samples will be 8-9 foot probes in Geological Information System (GIS) supported and aided locations in and around agricultural basins in the state. Special areas in and around farm aquifer basins that present the greatest potential for pesticide residue presence are detailed through this system.

Overall monitoring work will continue to emphasize sampling in the Yuma, Tucson and Phoenix areas with some sampling in the Casa Grande and Safford areas. At the present time the Pesticide Unit sends three FTEs on monitoring trips for soil samples and two FTEs on monitoring trips for water samples which the unit justifies primarily on the basis of safety.

The monitoring team traveled approximately 35,000 miles last year, 25,000 of these miles or about 71% were for routine monitoring activities. The balance of the miles were spent on special monitoring projects usually of an emergency type nature. Special monitoring projects require about 25% of each of four FTEs or one FTE equivalent. The number of samples taken is limited primarily because of sample cost restraints as well as scheduling problems encountered with the DHS lab which requires the team to check with them before making trips. The DHS lab becomes very busy during the spring and summer months.

Impact

According to our interviews, the following man-hours are required to monitor the routine groundwater soil and water sampling program.

- 90 water samples X 1 hour per person X 2 FTE = 180 man-hours
- 60 soil samples X 2 hours per person X 3 FTE = 360 man-hours
- Preparation requirement for 150 samples @ 3 hours each = 450 man-hours
- Travel man-hours for both water & soil = 1,000 man-hours.

Travel time could be reduced by as much as 70% if the monitoring FTEs lived in monitoring areas of the state that could preclude overnight travel. Exhibit 60, 1991 Estimated Team Travel, Time & Cost Chart, shows that of 84 trips made, 55% of them required 1-3 nights of lodging. If FTEs were placed in strategic locations, overnight lodging for routine monitoring could be virtually eliminated (see Exhibit 60, 1991 Estimated Team Travel, Time & Cost Chart, which shows food, travel and lodging costs.

DEQ staff could work out of offices in the Agricultural Basins. Familiarity with the agricultural community would reduce the perceived need for safety and would not require three FTEs for soil monitoring and more frequently not two FTEs for water samples. One FTE could be located in Casa Grande and one in Yuma.

By reducing overnight travel and travel miles by 70% the new FTE requirement would be as follows:

- 90 water samples X one hour per person X two FTE = 180 man-hours
- 60 soil samples X two hours per person X two FTE = 240 man-hours
- Preparation requirement for 150 samples @ three hours each = 450 man-hours
- Travel man-hours 1000 - 700 = 300 man-hours.

1,170 man-hours divided by 1,675 productive man-hours per FTE = .7 FTE + 1 FTE for special monitoring projects (as mentioned above) = 1.7 FTE ; total requirement for groundwater monitoring program.

Recommendations

We recommend the following:

- Eliminate one vacant EHS I position and one filled EHS II position (see Exhibit 59, Water Assessment Section, Current Organizational Chart).
- Locate one FTE in Casa Grande and one FTE in Yuma
- Investigate leasing of a Hydraulic 208 Soil Probe.

Benefits

- Cost avoidance savings of \$26,548 from one vacant EHS I position and cost reduction savings of \$31,000 from one filled EHS II position. Additionally, a savings of 70% of \$29,450 i.e., \$20,615 in travel cost. This gives a total savings of \$78,163 (State funds).
- Improvement in efficiencies by combining work activity even though one FTE could be located in Yuma and one FTE in Casa Grande
- Recommendation takes advantage of strength of two agencies-DEQ providing standards and GIS support while ADA providing manpower and supervision at the location offices.

Implementation

- Locate a State office in Casa Grande and Yuma
- Investigate leasing a Hydraulic Soil Probe
- Time frame: Approximately 6 months.

DEQ - OFFICE OF WATER QUALITY
 WATER ASSESSMENT SECTION
 JANUARY 01, 1992

EXHIBIT 59

BALE - MUMSON (S/D)
 ENV PROG MGR
 S 0532 †

TAMULIS
 ADM SECY I
 S 0562 †

VACANT
 CLK TYP II
 S 0568 †

HOCKETT
 IPS II
 S 0567 †

PESTICIDES
 UNIT

POINT SOURCE &
 MONITORING UNIT

WATER QUALITY STANDARDS/
 LAB COORDINATION UNIT

NONPOINT SOURCE
 UNIT

YU (S/D)
 ENV PROG SUPV
 S 0533 †

SWANSON
 ENV PROG SUPV - PE
 S 0460 †

WOODWICK
 ENV PROG SUPV
 S 0552 †

SHROYER
 ENV PROG SUPV
 S 0534 †

VACANT
 EHS I
 S 0554 †

MALONE (S/D)
 ENV PROG SPEC
 S 0547 †

VACANT
 SECY
 S 0565 †

CAMPBELL
 SECY
 S 0540 †

JOHNSON
 SECY
 S 0563 †

VACANT
 SECY
 S 0472 †

MARSH
 ENV PROG SPEC
 S 0535 †

BROWN
 EHS II
 S 0539 †

MATT
 ENV ENG SPEC
 P 0546 †

LATIN
 EHS II
 S 0545 †

MEYERHOFF
 ENV PROG SPEC
 P 0536 †

MACHADO
 EHS II
 S 0543 †

STEPHENSON
 ENV PROG SPEC
 S 0693 †

VACANT
 EHS II
 S 0708 †

SADOWL
 EHS II
 S 0544 †

ELTING
 R & SA II
 S 0558 †

CANELIN
 EHS I
 S 0559 †

LAWSON (TUC)
 EHS II
 S 0555 †

HEARD
 EHS II
 S 0556 †

PALMER
 EHS II
 P 0542 †

MONROE
 ENV PROG SPEC
 S 0548 †

HILL
 EHS I
 S 0557 †

(S/D)
 EHS II
 S 0551 †

CARRASCO
 ZDP MGMT INFO SPEC
 S 0271 †

LONGSWORTH (TUC)
 HYDRO III
 S 0538 †

CARTER
 HYDRO II
 S 0541

TRENT
 ENV PROG SPEC
 S 0144 † 4*

SPINDLER (U/P)
 EHS II
 P 0278 † CL

WALKER
 EHS II
 P 0181 †

VANDERHARK
 ENV PROG SPEC
 P 0192 †

BUTS
 EHS II
 P 0736 †

VACANT
 ST SERV INTERN
 P 0569 †

VACANT
 ENV PROG SPEC
 S 0150 4* †

HYDE
 ENV PROG SPEC
 S 0153 4* †

VACANT
 ST SERV INTERN
 P 0141 †

CHRISTHAN
 ST SERV INTERN
 P 0142 † CL

VACANT
 ENV PROG SPEC
 P 0182 †

RANDALL
 EHS II
 P 0183 †

WILLIAMS
 EHS II
 S 0154 4* †

VACANT
 EHS II
 P 0772 †

 † PROPOSED †
 † EHS II †
 † P 0809 †

VACANT
 ST SERV INTERN
 P 0501

VACANT
 ST SERV INTERN
 P 0500 †

VACANT
 ST SERV INTERN
 P 0531 †

STEINER
 ST SERV INTERN
 P 0193 †

DEQ - 189

1991 ESTIMATED ROUTINE GROUNDWATER MONITORING TEAM TRAVEL

SOIL

<u>LOCATION</u>	<u>TRAVEL TIME</u>	<u># FTE</u>	<u># TRIPS</u>	<u>MANHOURS</u>
YUMA	8 HR	3	15	360
SAFFORD	7 HR	3	4	84
CASA GRANDE	2 HR	3	5	30
TUCSON	4 HR	3	8	96
PHOENIX	1 HR	3	10	<u>30</u>
				<u>600</u>

WATER

YUMA	8	2	15	240
SAFFORD	7	2	4	56
CASA GRANDE	2	2	5	20
TUCSON	4	2	8	64
PHOENIX	1	2	10	<u>20</u>
				<u>400</u>

1991 ESTIMATED ROUTINE GROUNDWATER MONITORING TEAM TRAVEL

MOTEL

LOCATION	AMT	FTE'S	NIGHTS	TRIPS	COST
YUMA	\$50.00	3	3	15	\$6,750
TUCSON	\$50.00	3	2	8	2,400
SAFFORD	\$50.00	3	2	4	1,200
					<u>\$10,350</u>

FOOD

LOCATION	AMT	FTE'S	DAYS	TRIPS	COST
YUMA	\$20.00	5	4	15	\$6,000
TUCSON	\$20,00	5	3	8	2,400
SAFFORD	\$20,00	5	3	4	1,200
CASA GRANDE	\$10,00	5	3	5	750
					<u>\$10,350</u>

TRAVEL

MILES 25,000 X .35 PER MILE \$8,750

TOTAL COST FOR ROUTINE MONITORING, MOTEL
FOOD, TRAVEL MILES = \$29,450.00

GROUNDWATER PROTECTION LIST

Current Situation

The groundwater protection list is part of the requirement that emerged from the 1986 Environmental Quality Act (Federal) which directed DEQ to establish a Pesticide Prevention Program. This program is administered by the Office of Water Quality, Water Assessment Section.

The Pesticides Unit is developing a (on-going) list of pesticides which will be monitored. The draft (see Exhibit 61, Draft, 1991 Pesticides List) is the current list and it includes 133 pesticides, of which only 91 have currently existing methodology for processing.

The Department of Health Services (DHS) will process 150 water and soil monitoring samples this coming year from the pesticide units Groundwater Protection Program. This will be done at a cost of approximately \$1,200 per sample or at a total cost of \$180,000.

DHS uses a system called "Gas Chromatography/Mass Spectrometry" (GCMS) to process these samples. In order to process such a broad number of pesticides (91), DHS classifies them into three major groups; Herbicides, Carbonates, and All Other Pesticides. In addition to this they run another specific process for two banned pesticides called EDB and DBCP, both fungicides previously used by citrus growers to control nematodes. EDB and DBCP are not on the groundwater protection list because they are banned from sale or use and are the only two pesticides ever found in Arizona Groundwater Monitoring Samples.

The Environmental Protection Agency (EPA) requires that all Groundwater Monitoring Samples be processed with approved EPA methods for sample analysis. These methods are numerous and numbered (for example Aldicarb 531.1). DHS uses a customized method developed by Varian, a testing company, which is a variation of an approved EPA method (Number 608), in order to accommodate the large number of pesticides grouped into the "All other pesticides" group mentioned above.

A.R.S 49-303 requires DEQ to establish specific numeric values or standards that can be used to measure the tendency of a pesticide to leach into groundwater. The criteria in A.R.S. 49-303 requires special values or standards to be employed by DEQ even though it may result in identifying too many pesticides.

In November of 1990 a performance audit of pesticide regulation was completed by the State of Arizona Office of the Auditor General. In their findings they said the Statutory criteria for determining which pesticides must be monitored are too broad and that DEQ will not be able to monitor all the pesticides identified by this criteria.

Impact

We have been told in our interviews that the cost of \$1,200 per sample could be reduced if the size of the Groundwater Protection List were reduced. In phone interviews with DHS Personnel we were told that they could be reduced but with special qualifications.

In interviews with six management personnel in DEQ either directly or indirectly associated with pesticide activity or groundwater problems, we were told that of the pesticides on the Groundwater Protection List, between 2 and 15 pesticides represent a potential threat to groundwater. Both DEQ and the EPA believe the current list of 133 pesticides is too long. No pesticides on the Groundwater Protection list have been found in the tests of 300 water (wells), and soil samples since 1987 when testing was initiated.

In the performance audit mentioned earlier, the Arizona Auditor General recommended that "given limited resources, DEQ needs statutory flexibility to reduce and prioritize the number of pesticides to be monitored."

Exhibit 62, Reduced 1991 Pesticides List, summarizes all pesticides that have not been banned and are therefore eligible for the groundwater protection list, which have been detected in groundwater in greater amounts than the EPA Health Advisory allows, and detected in more than two states or more than four wells across the United States. This data came from a 1988 report on Pesticides in Groundwater in the United States, published by the Oregon State University Extension Service. This list contains 24 pesticides.

Using this list, we requested information on the cost to process 150 samples per year from one lab, on the list of laboratories capable of this work (see Exhibit 63, Arizona Laboratories List).

The contractor offered to supply this service at \$800 per sample using Gas Chromatography (GC), with a sensitivity 100 times better (as a rule of thumb) than an older model GCMS system, which is currently being used by DHS. The EPA recommended methods are more commonly associated with the use of GC for sample processing.

Recommendations

We recommend the following:

- That DEQ and the Governor support legislation that will allow modifications in the current State Statute that can result in a reduction in the number of pesticides on the groundwater protection list. We also recommend that DEQ be allowed to use additional methods such as computer modeling to determine both the number of pesticides on the list and the quantity of pesticide samples that need to be monitored and tested. Our recommendation concurs with the Arizona Auditor General's recommendation on this issue
- That DEQ adopts a list similar to that shown on Exhibit 62, Reduced 1991 Pesticides List
- That DEQ offer the Groundwater Protection List Lab-work as a package (150 samples) to other laboratories, both Government and Private (see Exhibit 63, Arizona Laboratories List) on a bid basis, who are capable of using EPA accepted and recommended methods
- That DEQ spend more time evaluating systems of processing groundwater samples for the purpose of reducing both the cost and improving the qualitative aspects of the service.

Benefits

- A shorter Groundwater Protection List will present an opportunity to improve the quality of service and reduce the cost. This could in turn reduce budget restraint on more groundwater monitoring samples and at lower cost to State Government.
- Adoption of Groundwater Protection list (see Exhibit 62, Reduced 1991 Pesticides List) would result in an annual savings of \$60,000 by contracting the laboratory processing of groundwater samples
- Current cost of 150 samples @ \$1,200 each = \$180,000
- Proposed cost of 150 samples @ \$ 800 each = \$120,000
- Net savings = \$ 60,000 (State funds)

Implementation

- Adopt Pesticides List as shown on Exhibit 62 through legislation approval process
- Time frame: Approximately 13 months.

1. 2, 4-D ACID
2. 2, 4-DB BUTOXYETHYL ESTER
3. 2, 4DB, DMA SALT
4. 1, 3-DICHLOROPROPENE
5. ACEPHATE
6. ACROLEIN
7. ALACHLOR
8. ALDICARB
9. AMETRYN
10. AMITROLE
11. ARSENIC ACID
12. ASULAM, SODIUM SALT
13. ATRAZINE
14. AZINPHOS-METHYL
15. BENDIOCARB
16. BENOMYL
17. BROMACIL
18. BUTYLATE
19. CACODYLIC ACID
20. CAPTAN
21. CARBARYL
22. CARBOFURAN
23. CARBOXIN
24. CHLOROTHALONIL
25. CHLORSULFURON
26. CYANAZINE
27. CYCLOATE
28. CYROMAZINE
29. DICAMBA ACID
30. DICAMBA, DEA SALT
31. DICAMBA, DMA SALT
32. DICAMBA, POTASSIUM SALT
33. DICAMBA, SODIUM SALT
34. DICHOLOBENIL
35. DICLORAN
36. DIETHATHYL ETHYL
37. DIFENZOQUAT METHYL SULFATE
38. DIMETHOATE
39. DIPHENAMID
40. DIQUAT DEBROMIDE
41. DIURON
42. DPX-M6316
43. ENDOSULFAN
44. ENDOTHALL
45. ENDOTHALL, DIPOTASSIUM SALT
46. ENDOTHALL, DISODIUM SALT
47. EPTC
48. ETHEPHON
49. ETHOFUMESATE
50. ETHOPROP
51. ETHYL PARATHION
52. ETRIDIÁZOLE
53. FENAMIPHOS
54. FENARIMOL
55. FLUAZIFOP-P-BUTYL
56. FLUAZIFOP-R-BUTYL
57. FLUCYTHRINATE
58. FLUOMETURON
59. FLURIDONE
60. FOSAMINE AMMONIUM
61. FOSETYL-A1
62. GLYPHOSATE, ISOPROPYLAMINE SALT
63. HEXAZINONE
64. IMAZAMETHABENZ-METHYL (META)
65. IMAZAMETHABENZ-METHYL (PARA)
66. IMAZALIL
67. IMAZAQUIN
68. ISAZOFOS

69. LINDANE
70. LINURON
71. MALEIC HYDRAZIDE, POTASSIUM
72. MCPA
73. MCPA - DMA SALT
74. MCPA - ISOOCTYL ESTER
75. MCPA - SODIUM SALT
76. MEPIQUAT CHLORIDE
77. METALDEHYDE
78. METALAXYL
79. METAM - Na
80. METHAMIDOPHOS
81. METHIOCARB
82. METHOMYL
83. METHYL PARATHION
84. METOLACHLOR
85. METRIBUZIN
86. METSULFUON METHYL
87. MEVINPHOS
88. MONOCROTOPHOS
89. MYCLOBUTANIL
90. MSMA
91. NAMPROPAMIDE
92. NORFLURAZON
93. ORYZALIN
94. OXAMYL
95. OXYDEMETON - METHYL
96. PARAQUAT
97. PEBULATE
98. PERMETHRIN
99. PHOSMET
100. PHOSPHAMIDON
101. PICLORAM
102. PICLORAM - ISOOCTYL ESTER

103. PICLORAM, TRIISOPROPARALOMINE SALT
104. PICARLAM, POTASSIUM SALT
105. PROFENOFOS
106. PROMETON
107. PROMETRYN
108. PRONAMIDE
109. PROPAMOCARB
110. PROPICONAZOLE
111. PYRAZON
112. SETHOXYDIM
113. SIMAZINE
114. SODIUM BENTAZON
115. SODIUM CHLORATE
116. SULFOMTURON - METHYL
117. SULPROFOS
118. TEBTHIURON
119. TERBACIL
120. TERBUFOS
121. TERBUTRYN
122. THIDIAZURON
123. THIODICARB
124. THIOPHANATE - METHYL
125. THIRAM
126. TRIADIMEFON
127. TRICHLORFON
128. TRICLOPYR
129. TRICLOPYR, BUTOXYETHYL ESTER
130. TRICLOPYR, TRIETHYLAMINE SALT
131. TRIFORINE
132. VERNOLATE
133. VINCLOZOLIN

Taken from "Pesticides in Groundwater in the United States of America". A report of a 1988 Survey of State lead Agencies. (Oregon State University Extension Service)

The following list of pesticides are those eligible for the Groundwater Protection list that have been detected in groundwater in greater amounts than the EPA Health Advisory Advisory and detected in more than 2 States or more than 4 wells across the United States.

1.3 DECHLOROPROPENE

ALDICARB
ATRAZINE

2-4D

ALACHLOR

BHC

BROMACIL

CALBOTURAN

CHLOROTHALONIL

CYANAZINE

DCPA

DICAMBA

DIURON

LINEDANE

METHAMIDOPHOS

METHOXYCHLOR

METHDLACHLOR

METRIBUZIN

PICLORAM

PROMETON

SIMAZINE

TRITLURALIN

EPTC

METHOMYL

ADDITIONAL INFORMATION FROM THE REPORT

- There were 67 pesticides detected in 33 states
- There were 169 pesticides analyzed for
- There were 102 pesticides not detected
- There were 144,401 opportunities for positive results
- There were 6,034 positive responses or 4.17%
- Of the 4.17%, 17.7% were greater than the Health Advisory

NOTE

The 4.17% positive findings do not measure the incidence of pesticides in either wells or aquifers in a general sense, but measures the incidence in pre-selected, vulnerable and susceptible or high-risk wells and aquifers.

ARIZONA LABORATORIES

Arizona Testing Laboratory
810 East Hammond Lane
Phoenix, Arizona 85044

State Agricultural Laboratory
2422 West Holly
Phoenix, Arizona 85009

Arizona State Health Services
State Laboratory Services
1520 West Adams Avenue
Phoenix, Arizona 85007

Analytical Technologies, Inc.
9830 South 51st Street
Suite B-113
Phoenix, Arizona 85044

ADA - DEQ COORDINATION OF INSPECTIONS

Current Situation

The Non-Point Source Unit of the Water Assessment Section is currently authorized 14 FTEs with two additional proposed positions for a total of 16. Three of the 14 budgeted positions were vacant at the time of this study. Management has assigned two of the field positions to the agriculture portion of DEQ and intends to assign one of the proposed positions to this area. These positions are identified by the shaded blocks on the organization chart, (see Exhibit 59, Water Assessment Section, Current Organizational Chart).

A.R.S 49-247 authorizes DEQ to establish "Best Management Practices" (BMP) in agriculture. These include nitrogen fertilizer management, concentrated animal feeding operations (CAFO) and animal grazing practices.

The agriculture portion of the Unit also responds to complaints. The complaint log (see Exhibit 64, CAFO Facility Inspection [Complaint] Tracking Log) shows that last year DEQ received eight complaints. The log also shows that these complaints were referred to the USDA soil conservation service, an agriculture agency, for evaluation. Nineteen visits to the facilities were made in response to the eight complaints.

According to our interviews, the program plan is to develop an inspection agenda based on approximately 360 dairy, swine, poultry and cattle operations, as well as another 8,100 farms statewide.

Impact

The nitrogen fertilizer BMP is completed and published. The CAFO BMP is at the publisher's. The grazing practices BMP has been drafted, and the final draft is under review. According to our interviews, 85% of the man-hours of the agricultural portion of this Unit have been dedicated to the BMPs, and 15% to inspections and complaint responses.

Complaint follow-up and inspection of known violators consumes only 15 percent of the time of two positions. Routine inspection of 360 animal operations and the 8,100 farms appears to duplicate areas of responsibility already covered by the Arizona Department of Agriculture (ADA). Transferring the future inspection plan to agencies which have offices and activities in the areas where monitoring or inspection

needs to occur has a major potential cost savings benefit to DEQ, including the elimination of any duplication of effort between the state agencies.

By developing communication, training and reporting agreements between DEQ and ADA, DEQ can retain program integrity, priority and direction for this activity. Because the BMPs are essentially completed, with the exception of the final draft of the grazing practices, and due to the very small number of complaints received, adequate manpower is already available to so transfer the inspection program.

Recommendations

We recommend the following:

- Retain the two FTEs currently completing the grazing practices final draft and servicing complaints, and use them in the development of Inter-Governmental Agreements (IGA) to accomplish servicing of complaints and inspections of known violators
- Transfer the Agricultural EHS I position to ADA, with its support budget, when the Grazing Practices BMP is signed
- Eliminate the currently proposed and approved, EHS II position
- Retain one position in DEQ to monitor agriculture environmental interests.

Benefits

The benefits to be secured by these recommendations include:

- Cost avoidance of \$31,250 annually (Federal funds)
- Unquantified cost avoidance by eliminating duplicate travel, per diem and staff time for duplicate inspections of farms and animal operations.

Implementation

Refer to Implementation Plan in the Recommendation "Pesticides Unit," which should be done together, identically.

- Time frame: Approximately 13 months.

GROUNDWATER HYDROLOGY SECTION

Current Situation

The Groundwater Hydrology Section is composed of four Units. These Units are Remedial Investigations Hydrology Unit (RIHU), Site Assessment Hydrology Unit (SAHU), Non-Point Source/ Groundwater Monitoring Unit (NPS-GWM), and Ground Water Hydrology Technical Services Unit [GWH-TSU] (see Exhibit 65, Groundwater Hydrology Section, Current Organizational Chart) which shows how these Units are structured.

The NPS-GWM Unit monitors water quality on a state-wide basis. Arizona has 50 to 60 groundwater basins. The difference between this Unit and the Water Assessment Section's Pesticides Unit is that NPS-GWM monitors all groundwater basins, whereas the Pesticides Unit monitors only agricultural basins and takes samples for pesticides shown on the Groundwater Protection List. NPS-GWM's activity is very similar to that of the Water Assessment Section Pesticides Unit.

The Unit monitors a host of water quality issues, such as radioactive chemicals, nitrates, and others. It also supplements pesticide monitoring, although the pesticides may or may not be on the Groundwater Protection List. NPS-GWM reports both to the legislature and the (federal) Environmental Protection Agency (EPA) on water quality conditions of the groundwater basins, and interfaces with the Water Assessment Section on these issues. The Unit has also had an input into the development of Best Management Practices (BMP) that Water Assessment's Non-Point Source Unit has developed for agriculture.

The Ground Water Hydrology Technical Services Unit (GWH-TSU) provides technical assistance with data base activity to the other Units in the Groundwater Hydrology Section. This activity is authorized under A.R.S. 49-225.B. The Unit also plays a lead role in the development of the Geographical Information System (GIS) for the other Units in the Section. Other technical input involves work on the Global Position Satellite (GPS) system, and development of the Groundwater Protection Guidance Level (GWPGGL), which is a program designed to measure concentrations of chemicals in the soil which would contaminate groundwater.

Remedial Investigations Hydrology Unit (RIHU) activity is funded by the Water Quality Assurance Revolving Fund (WQARF) and the federal SuperFund. RIHU supplies technical support on WQARF, federal SuperFund or Resource Conservation Recovery Act (RCRA) eligible projects to other Section in D.E.Q., particularly in the Remedial Projects Section of the Waste Division (Office of Waste Products).

The technical services they offer are initiated by requests (see Exhibit 66, "Superfund Hydrology Unit Document Submittal," Form). Upon request, RIHU leads investigation inspections of sites, reviews site work plans, sample plans, health and safety plans, and almost any waste generator documents and recommends changes and supplements.

The Site Assessment Hydrology Unit (SAHU) is totally funded by EPA grants, and their activity is entirely sites, or projects eligible for federal SuperFund monies. SAHU supplies technical assistance to the EPA through an Arizona list supplied to SAHU, who screens the list for federal SuperFund eligible hazardous waste sites (most are groundwater concerns).

SAHU makes site inspections, writes sample plans and Site Inspection Reports (S.I.R.s). The EPA reviews this work and determines if they concur with what SAHU is presenting to them. Once the work plan has been completed and approved by the EPA, it is administered as a federal SuperFund project, and generally becomes the responsibility of the EPA.

Impact

Many of the issues and activities of the Non-Point Source Ground Water Hydrology (NPS-GWH) Unit are either similar to, duplicate, or interface with both the Water Assessment Non-Point Source Unit (WA-NPSU) and the Water Assessment Pesticides Unit (WA-PU) in the Water Assessment Section. The following charted issues and activities provide examples:

<u>Issues/Activities</u>	<u>NPS-GWH</u>	<u>WA-NPSU</u>	<u>WA-PU</u>
Monitor groundwater	X		X
Concerned with pesticides	X		X
Concerned with nitrates	X	X	
Involved with BMPs	X	X	
Impacts on GW quality	X	X	X
Complaint response	X	X	
Resource extraction	X	X	
Use of drastic maps	X		X

While the Ground Water Hydrology Technical Services Unit (GWH-TSU) provides assistance to the other Units in the Groundwater Hydrology Section, primarily through G.I.S. and data bases, the Unit provides similar activities and interface on many of the same issues with the Water Assessment Section Pesticides and the Non-Point Source Units. The following are examples:

<u>Issues / Activities</u>	<u>GWHTSU</u>	<u>WA-NPSU</u>	<u>WA-PU</u>
Data basing	X		X
G.I.S.	X		X
Modeling (proposed)	X	X	X
GWPGI	X	X	X

The proposed Hydro II position in the Non-Point Source Ground Water Monitoring Unit (which has been approved for employment, according to our interviews) would be employed to develop the Best Management Practices (BMP) in agriculture, which already has been almost completed by the Water Assessment Section, Non-Point Source Unit.

The proposed Hydro III in NPS-GWM is also approved, but is essentially an enhancement to an existing state program, and would be involved in evaluation of surface and groundwater impact on abandoned mining sites.

The proposed Water Resources Technician in the GWH-TSU has been approved for hiring, to purchase and maintain equipment which previously has been done by individuals in the Unit and/or state interns.

The proposed EDP Programmer Analyst III position in the GWH-TSU is designed to take over data base work and some GIS work from a position already functioning in this capacity.

None of the Units in the Water Assessment Section have the benefit of working (within their Units) with positions which are bona-fide hydrologists by Position Description Questionnaire (PDQ). By merging the GWH-TSU and the NPS-GWM into the Water Assessment Section's Non-Point Source Unit and Chemical Pesticides Units, the positions of two Unit Supervisors, a Section Manager and a Secretary could be eliminated (see Exhibit 67, Water Assessment Section, Proposed Organizational Chart).

The other two Units in Groundwater Hydrology, i.e., Remedial Investigations Hydrology and Site Assessment Hydrology Units, would also benefit by moving because of the data base and GIS support they receive from the above two Units. By combining the Remedial Investigations and Site Assessment Units into one Unit, one Environmental Program Supervisor can be deleted, improving the span of control over this newly combined Unit. This will also give the Remedial Investigations group the secretarial support they presently do not have (see Exhibit 67, Water Assessment Section, Proposed Organizational Chart).

Exhibit 65, Groundwater Hydrology Section, Current Organizational Chart, shows the Ground Water Hydrology Section as it presently exists. The proposed reductions, and the reassignment of the remaining positions in the Water Assessment Section (see Exhibit 67, Water Assessment Section, Proposed Organizational Chart).

Recommendations

We recommend the following:

- The Groundwater Hydrology Section be eliminated by merging the services they provide into the Water Assessment Section
 - Eliminate the proposed, Federal funded (vacant) Hydro II position in Non-Point Source Ground Water Hydrology Monitoring Unit
 - Eliminate the proposed Federal funded (vacant) Hydro III position in Non-Point Source/Groundwater Monitoring Unit
 - Eliminate the Environmental Program Supervisor filled, State funded position for the Non-Point Source/Groundwater Monitoring Unit
 - Eliminate the proposed (vacant) WQARF funded EDP Program Analyst III position in the Technical Services Unit
 - Eliminate the proposed (vacant) WQARF funded Water Resources Technician position in the Technical Services Unit

- Eliminate the (vacant) Federal funded Hydro IV position in the Technical Services Unit (Federal funds)
- Eliminate the filled, Federal funded Environmental Program Supervisor position in the Site Assessment Hydrology Unit
- Eliminate the filled, State funded Groundwater Hydrology Section Manager position
- Eliminate the filled State funded Groundwater Hydrology Section Manager's Secretary position.

Benefits

- The breakdown of positions elimination is as follows:

One vacant Hydro II, one vacant Hydro III, one vacant EDP Program Analyst III, one vacant Water Resource Tech, one vacant Hydro IV, two filled EP Supervisors, one filled GW Hydro Section Manager, one filled Secretary position.

- This will result in the following savings:

Cost Avoidance	\$179,398
Cost Reduction	<u>146,079</u>
Total Savings	<u>\$325,477</u>

- Federal funds \$154,608; State funds \$105,180; Other funds \$65,689.

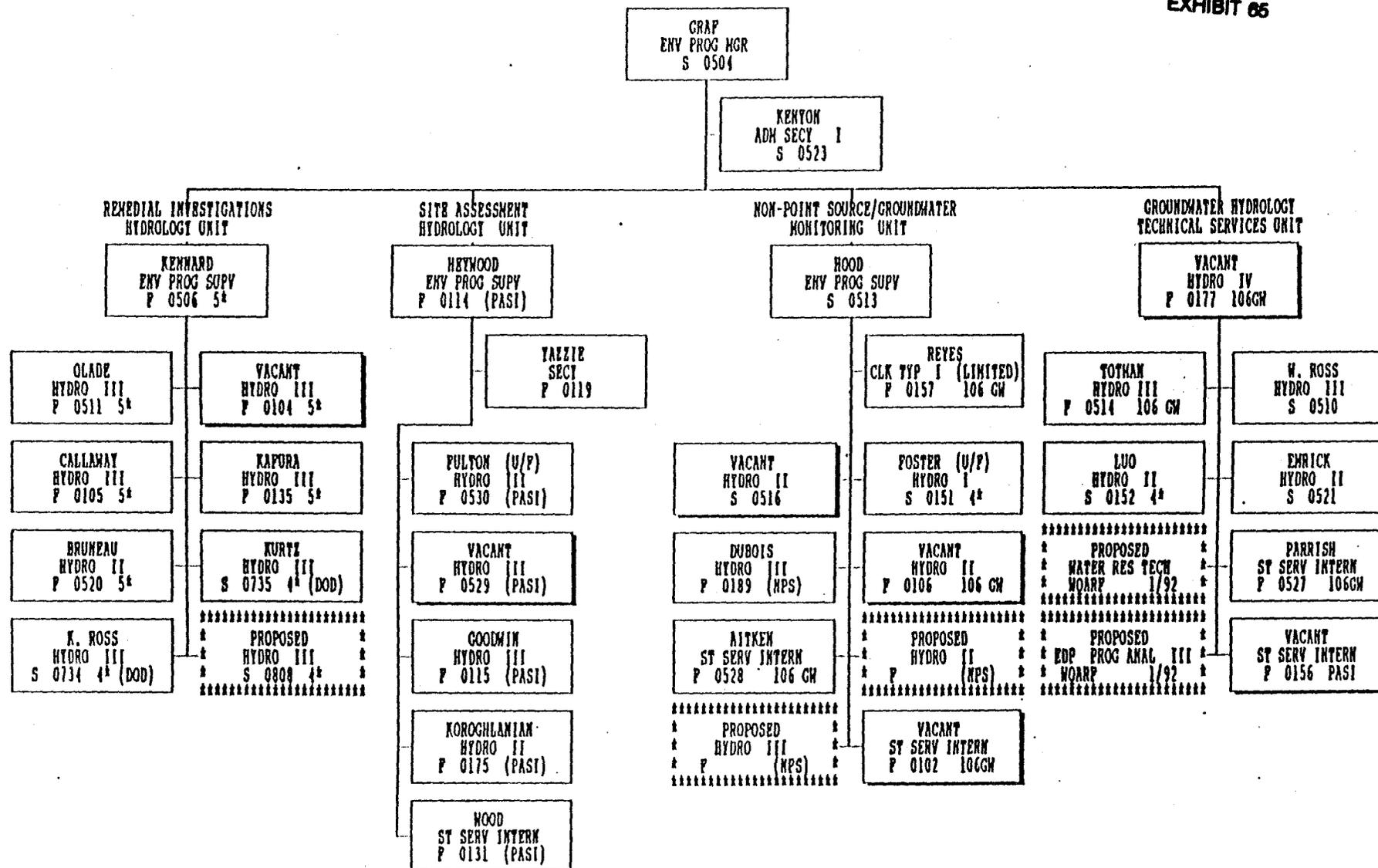
Implementation

- Take necessary personnel action to eliminate positions
- Time frame: Approximately 60 days.

DEQ - OFFICE OF WATER QUALITY
 GROUNDWATER HYDROLOGY SECTION
 JANUARY 01, 1992

EXHIBIT 05

DEQ - 211



Superfund Hydrology Unit
Document Submittal

EXHIBIT 66

TO: Shana Pearce
Superfund Hydrology Unit

DATE: 1/2/92

FOR: Michelle Kammind / Craig Koford

FROM: Tom Curry

Phone Number: 257-2255

FACILITY NAME: University of AZ Experimental Farm
J D

Meeting

When _____

Where _____

Purpose _____

Document Review

What: Draft-Phase I Remedial Activities Report

Date Due: Jan 23, 1992

Comments: Craig has already received his copy of the report.

Conference Call

When _____

Phone number or location _____

Discussion topics _____

Field Activities

Where _____

When _____

Purpose _____

DEPARTMENT of ENVIRONMENTAL QUALITY

OFFICE OF ADMINISTRATION RECOMMENDATIONS

SIMPLIFY EDP EQUIPMENT PURCHASES

Current Situation

When a program staff member in the Offices of Water Quality, Air Quality, Waste Products or Administration identifies a need for an item of computer equipment or software, that request is written up on whatever type of memo or other documentation the Unit Manager desires.

The request will then be routed through the appropriate channel of communication (see Exhibit 68, Management, Budget & Information Resources Management Sections, Current Organizational Chart, and 69, Business and Finance Section, Current Organizational Chart) to the Information Center Unit Manager in Automation (Information Resource Management Section), together with what is considered appropriate justification for that purchase. That Unit Manager then reviews the request, to determine

- Is the requested equipment or software compatible with the Department's existing equipment and plan for automation
- Is the need for this requested item clear, and not duplicated by resources already in the Department
- Does this request meet the "norm" for the requesting division, for IRMS and for the Department
 - If insufficient justification exists, the request is returned to the requesting Unit
 - If the request appears justified, it is forwarded to the Office of Administration, Budget Unit

Upon receipt of the request in the Administration, Budget and Audit Section of the Office of Administration, verification is made of funds availability for that Unit and program. An encumbrance number is obtained, the encumbrance entered into the accounting system by another staff, then passed to another Unit in the Office of Administration where staff signs the Purchase Request and enters the appropriate codes for the purchase.

This request then is returned to the Automation Information Center Unit Manager, who prepares a cover or "transmittal" memo to the Department of Administration Data Center Manager for counter-

signature by the Office of Administration Assistant Director, identifying the item(s) to be purchased, attaching a copy of the request packet, which includes signed confirmation of adequate budget for the purchase, and seeking authorization to obtain the requested equipment (see Exhibit 70, Purchase Requisition for Computer Materials).

We were advised that a recent decision has been made to forward all such requests to the Director of the Department of Administration, who will review the fiscal information supplied, and sign all authorizations. At this point, with no experience with this newly extended routing, no one knows how much time will be added to the process.

There have been approximately 75 work stations obtained during the past three years, for an average of 25 per year. No report was provided as to the number of software purchase requests which have been submitted through this channel. It also was reported that no request for purchase ever has been denied by D.O.A.

Impact

Extensive time is expended in preparing all the required documentation, and routing these requests through the D.E.Q. Divisions and Sections for basic purchases. There also is the added burden of forwarding all documentation to D.O.A., awaiting their staff review and response. Exhibit 70, Purchase Requisition for Computer Materials, shows a one month turn-around, which we were informed might go as long as two to three months), while staff await the acquisition of tools required to enable them to do their assigned tasks.

The impacts of this system include:

- Creation of additional documents, and filing and maintaining those documents
- Establishing and maintaining a tracking system on authorizations forwarded to the D.O.A.
- Added work load on the Data Center staff in D.O.A., with the end product appearing to add no value to the system

- Diminishing authority of Section Managers to manage equipment acquisition needs together with work assignments to the best advantage within their own areas of responsibility
- Costly delays in obtaining tools required for staff to perform their functions in a timely and accurate manner, thereby increasing the time required for accomplishing all assignments -
- all at greater cost in time and money to the public
- Expenditure of staff time in the Office of Administration to review and authenticate the authority and funds availability to secure necessary tools by Section Managers.

Recommendations

We recommend:

- Eliminating all requirements for D.O.A. approval of EDP equipment and software unless that particular device or program is designed to inter-face with a program being operated on the D.O.A. main frame
- Empowering Section Managers to render decisions solely at their level for the purchase of necessary equipment and software, under a specified dollar level (e.g., \$10,000 per purchase) by
 - Providing them regular, current statements of their budget status
 - Ensuring they are cognizant of the overall EDP plan for the Department
 - Holding managers responsible for managing their staff and their budgets
 - Eliminating Budget Unit reviews
 - Eliminating Administration (Finance Unit) reviews.

Benefits

Benefits to be obtained from these recommendations include:

- Improved time between need identification and obtaining the needed tool
- Increased staff productivity, by decreasing unproductive waiting time for necessary equipment
- Reduced work load on the Department of Administration, Data Center staff
- Savings, as the above issues translate into work hours freed from essentially non-productive activity are applied to the tasks of the agency's Mission
- With 75 work stations (plus unknown quantities of software) purchased in the past three years, eliminating the above unnecessary review steps, and the time associated with them, may reflect savings of:
 - If thirty minutes direct staff time is involved by "walking through" the documents for signature, a 12.5 hour direct savings is seen
 - However, if a more realistic expectation of that 30 minutes generally requiring more closely two hours, there is a 50 hour savings by just one supervisory staff
 - Additional time also will be saved by the Management/Budget Section Manager, the Budget Unit Manager, the Assistant Director, and at least one accounting unit staff
 - Time involved in actually processing and tracking EDP-related purchases, by the Information Center Unit Manager, will be significantly reduced
 - Calculation of actual dollar savings, within the time constraints of this Project, are essentially impossible to determine.

Implementation

- Work with DOA to remove the requirements of DOA approval for EDP equipment and software purchases
- Time frame: Approximately 5 months.

DEPARTMENT OF ADMINISTRATION
OFFICE OF ADMINISTRATION
JANUARY 01, 1992

EXHIBIT 68

SMITH
ASSISTANT DIRECTOR - OA
S 0008 NC

MANAGEMENT, BUDGET &
AUDIT SECTION

INFORMATION RESOURCES
MANAGEMENT SECTION

FUCHS
EXEC CONSULT II
S 0205

McKAY
AA I
I 0224

COOLSBY (S/D)
EDP MANAGER II
S 0635

BUDGET

INFORMATION CENTER

BUSINESS SYSTEMS

SCIENTIFIC SYSTEMS

OPERATIONS AND R&D

DATA BASE

INTERNAL AUDIT

REELY
BUD CONTL DEV OFF II
I 0645

MATHEWS (S/D)
EDP PROG ANAL III
S 0637

PARIAS (S/D)
EDP PROG ANAL III
S 0639

FIELDS
EDP SYS PROJ LDR
S 0636

(S/D)
EDP TECH SOP SP I
S 0638

GIARRUSSO
EDP DATA BASE SP II
I 0229

BRODERICK-HURLEY
PROG COMP AUDITOR III
U 0267 '89

ARVIZU
AA I
S 0648

(S/D)
EDP MGMT INFO SPEC
S 0223

CROCKETT
EDP PROG ANAL III
O 0279

BESSERGLICK
EDP PROG ANAL III
U 0227 '87

* PROPOSED *
* EDP TELE SUP SP II *
* A64 *

VACANT
PROG COMPL AUDITOR II
T 0266 '89

DYKSTRA
BUD CONTL DEV SP II
S 0647

* PROPOSED *
* EDP MGMT INFO SPEC *
* A61 *

(S/D)
EDP PROG ANAL II
S 0581

* PROPOSED *
* EDP PROG ANAL II *
* A63 *

KAMPITSIS
EDP COMPUTER OPR III
I 0643

GRAY
REV FIELD AUDITOR II
T 0220 '89

SCHRIER
BUD CONTL DEV SP II
S 0646

VACANT
AA I
U 0641

* PROPOSED *
* EDP PROG ANAL II *
* A62 *

HARPER - 2ND SHIFT
EDP COMPUTER OPR III
I 0228

HALL
BUD CONTL DEV SP I
U 0230 '87

WARNER
ST SERV INTERN
S 0100

REED
EDP PROG ANAL I
I 0225 '87

AERNI
ADM BUDGET INTERN
S 0748 NC

L A H
ADMINISTRATORS
POSITIONS LOCATED
IN PROGRAM AREAS.

DEQ - 219

DEPARTMENT OF ADMINISTRATION
OFFICE OF ADMINISTRATION
JANUARY 01, 1992

EXHIBIT 69

SHITH
ASSISTANT DIRECTOR - OA
S 0008 NC

BUSINESS & FINANCE SECTION

BEISSEL
DEQ COMPTROLLER
S 0711 NC

GOEBEL (S/D)
PIS SVS MGR II
S 0625

VACANT
ADM SECY I
I 0629

ACCOUNTING
UNIT

* PROPOSED *
* PIS SVS UNIT MGR *
* A50 *

ACCOUNTS PAYABLE
UNIT

BORRMAN
PIS SVC SP III
I 0239

ACCOUNTS RECEIVABLE
UNIT

THOMPSON
PIS SVC SP III
U 0196

PAYROLL UNIT

PRANTZ
ACCT SUPP UNIT SUPV
I 0237

COST RECOVERY
UNIT

* PROPOSED *
* PIS SVS C/A MGR *
* A56 *

GAPFORD
PIS SVS SP IV
S 0685

* PROPOSED *
* PIS SVS SP V *
* A51 *

LAMMLE
ACCT TECH II
I 0215

RANKIN
ACCT TECH III
S 0630

TURNO
ACCT TECH II
S 0208 4*

THOMAS
ACCT TECH III
S 0633

* PROPOSED *
* PIS SVS C/A SP *
* A57 *

* PROPOSED *
* PIS SVS C/A SP *
* A58 *

SHAPER
PIN CNSLT I
U 0166

* PROPOSED *
* PIS SVS SP IV *
* A52 *

CAMP
ACCT TECH II
S 0642

VACANT
ACCT TECH III
U 0233 *7

PARRY
ACCT TECH II
S 0634

MAJLISH
ACCT TECH II
I 0631

SAMS (S/D)
PIS SVS SP III
S 0238 4*

RHYNER
ACCT TECH III
I 0127

DERNER
BUD CONT DEV SP II
I 0627

ATHALYE
PIS SVS SP II
I 0216

VACANT
ACCT TECH III
I 0126

* PROPOSED *
* ACCT TECH III *
* A53 *

HARDIN
ACCT TECH III
T 0219

McCULLEY
ACCT TECH II
I 0632

RODRIGUEZ
ACCT TECH III
S 0195 4*

* PROPOSED *
* ACCT TECH II *
* A59 *

JOHNSON
PIS SVS SP I
S 0644

SCHMIDT (S/D)
PIS SVS SP II
I 0143

JONES
ACCT TECH II
I 0626

DAVIS
ACCT TECH II
I 0217

VACANT
ACCT TECH III
O 0774

(S/D)
ACCT TECH II
U 0197

* PROPOSED *
* IPS II *
* A60 *

VACANT
PIS SVS SP I
S 0628

* PROPOSED *
* ACCT TECH II *
* A54 *

* PROPOSED *
* ACCT TECH II *
* A54 *

* PROPOSED *
* ACCT TECH II *
* A54 *

RODRIGUEZ
IPS II
S 0218

VACANT
IPS II
U 0198

* PROPOSED *
* ACCT TECH II *
* A54 *

YRIGOYEN
CLK TYP II
U 0199

DEQ - 220

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Inter-Office Memorandum

EXHIBIT 70
1 OF 6 PAGES

TO: Joseph Soporowski, Manager
Evaluations Unit

FROM: Gloria Mathews, ~~Manager~~ *G. Mathews*
Information Center

DATE: December 19, 1991

SUBJECT: Purchase Requisition 14510 Request for Hardware/Software

Your request for 14510 has been approved by Ben Froehlich November 26, 1991. Upon receipt of this memorandum your order is being forward to Procurement for processing. It will take Procurement 30 days to process the paperwork into the system; thereafter, your order will be mailed to Computerland and Software City. If you have any questions or concerns, please give me a call at 257-2316.

Thank You.

GM/

C: Katie Krueger
File - OAQ-14510

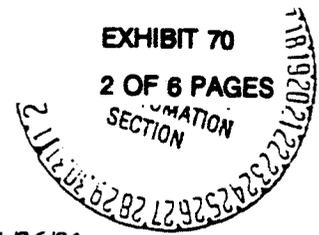


ARIZONA DEPARTMENT OF ADMINISTRATION

EXHIBIT 70

2 OF 6 PAGES

INFORMATION
SECTION



MEMORANDUM:

TO: Yvonne Goolsby, Data Processing Manager
Department of Environmental Quality

FROM: *Ben Froehlich*
Ben Froehlich, Assistant Director
DOA Data Management Division

DATE: 11/26/91
DMD 91-11-26-0427
OAQ-14510

SUBJECT: Purchase of automation equipment, software and/or services.

My staff has reviewed your request to purchase one Compaq 386/LTE microcomputer with related software and peripheral equipment. Your request implies that funding is available for the estimated cost of \$6,641.

This memo is your authorization to proceed with this request through the State Procurement Office.

cc: Wendy Winkelman



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

FIFE SYMINGTON, GOVERNOR
HOWARD Z. FOX, DIRECTOR

RE: OAQ-14510

TO: Ben Froehlich, Assistant Director
Data Management Division - Department of Administration

THRU: Joseph C. Smith, Assistant Director
Office of Administration

FROM: Gloria Mathews, Information Center Manager
Automation Section - Department of Environmental Quality

DATE: November 19, 1991

SUBJECT: Personal Computer Acquisition

Attached are copies of request for a personal computer for the Office of Air Quality, Assessment Evaluation Unit. The following configuration is as follows:

- 1) 1 Compaq 386/LTE MOD 60 with Keyboard;
- 2) 1 Desktop Expansion Base;
- 3) 1 Compaq VGA Color Monitor;
- 4) 1 Additional 3.5" Floppy Drive;
- 5) 1 Standard Micro-System Ethernet Card; and
- 6) Associated Software.

The basic need for the equipment has been documented. The estimated costs for the above Hardware/Software is \$6,640.54. I agree with the documentation of need, and recommend their approval. Please reference the above when replying to our request.

If you have any questions, please call me at 257-2363.

Attachments

- One Justification
- One Purchase Requisition

C: File - OAQ-14510

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
INTER-OFFICE MEMO

EXHIBIT 70
4 OF 6 PAGES

To: Gloria Matthews,
Manager, Information Center Unit

Thru: Nancy Wrona
Assistant Director for Air Quality

Thru: Gary Neuroth
Manager, Air Assessment Section

From: Joseph J. Soporowski, Ph.D.
Manager, Evaluations Unit

Date: October 16, 1991

Re: Justification for Computer and Software

1. STATEMENT OF NEED

A new computer system is needed that will allow the manager of the Evaluations Unit to accomplish the following objectives:

- A. Create a data base for the prescribed burning Smoke Management Program.
- B. Aid in development of the Air Toxics Program and the research projects that will originate from the program.
- C. Fast and efficient development of State Implementation Plans (SIPs) including emissions inventories, modeling, and write-up.
- D. Proper management of Unit Personnel.
- E. Create organizational and technical documents as part of Unit programs.
- F. Develop materials for presentations of study findings.
- G. Review modeling work of evaluations unit.
- H. Run air quality models.
- I. Access information while in the field using the laptop component of this system.
- J. Perform function and prepare documents while in the field using the requested software packages (necessary for laptop system)
- K. Obtain modeling and air quality information from sources outside the Department.
- L. Manage contracted research programs.
- M. Maintain a budget (if appropriate) for individual projects.
- N. Create working documents using a wordprocessing system.
- O. Create data bases using a spreadsheet program.
- P. Develop accurate record-keeping systems.

ALTERNATIVE SOLUTIONS

- A. Attempt to accomplish the stated objectives without the use of a computer system by manually performing the necessary tasks. Prepare all documents by hand and keep records in a "desk-file" system. Perform all modeling and related calculations using a scientific calculator.

Certain technical documents such as State Implementation Plans, research proposals, and presentations must be completed professionally using a wordprocessing and spreadsheet package. Using a hand calculator to do complete dispersion modeling as needed is not a feasible alternative due to human error and the vast amount of information to be processed.

- B. Procure an existing unit computer to perform the functions as required by the Manager of the Evaluations Unit.

In their present form, none of the existing computers are capable of performing the majority of the tasks required. Also, the existing systems are in high demand (95% of a working day). Rescheduling use of these computers would significantly reduce the productivity and efficiency of the entire evaluations team.

- C. Convert the existing Compaq 386 computer into a system capable of performing some of the needed functions.

This computer is currently being used to serve our meteorological information needs (Network with weather stations). Conversion of this system will undoubtedly encumber our staff and adversely affect our ability to obtain weather information for use in our Smoke Management Program. This alternative cannot perform the required functions to adequate levels.

FACILITIES AND SECURITY

This system will be located in the Air Quality Assessment Section of the 17th floor, 3003 N. Central Ave. Phoenix. The building has an exhaustive security program.

TRAINING PROGRAM

The Manager of the Evaluations Unit has previous experience working with the proposed equipment and software packages. Additional training will be in the form of self-training through use of manuals and knowledge gained through communication with skilled personnel in the Air Assessment Section.

SOURCE OF FUNDS

Air Quality



PURCHASE REQUISITION

2005 NORTH CENTRAL ■ PHOENIX, ARIZONA 85004

REQUISITION NUMBER
14510

PURCHASE ORDER NUMBER	AZ CONTRACT NUMBER	VENDOR NUMBER	DATE
	Gary Neuroth	91 NOV 13 AM 6:29	11/4/91

THIS AREA TO BE COMPLETED BY PURCHASING

S
H
I
P
T
O

ADEQ
3003 N. Central Ave.
Phx, AZ

LINE NO.	QUANTITY	UNIT	COMMODITY NUMBER	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1	1	ea		Compag ^{386LTX/} 386 20 Mod 60	2,807.22	3,743.22
	1			Desktop Expansion Base		779.22
	1			color Compag VGA 14" Monitor		545.22
	1		8416	STANDARD MICRO-545KM/PMC-3011UT BSCN-C5484 10Base-T Net cds 16 BIT		268.60 302.22
	1			Internal 2400 mdm f LTE/386s		287.82
	1			3.5" 1.44 MB Diskette Drive	128.52	214.50
	1			WordPerfect 5.1 Full Copy		336.60
	1		7980	Lotus 123 v2.3 full Copy	336.60	336.60
	1			Harvard Graphics		336.60
	1			Fastback Plus v2.1		128.52
	1			Xtpro Gold		101.32
	1			Procomm 2.0		100.00
				PC Architecture Remote ^{part #:} 161540		67.32

OFFICE/SECTION/UNIT NAME OAQ/Air Quality Assessment/ Evaluation Unit	DATE ORDER NEEDED ASAP	SUB TOTAL 6,223.56 5,211.90
PREPARED BY Joseph Soporowski, Manager, Evaluation Unit 888 JZ	TELEPHONE 257-6966	SALES TAX % 483.20
FEDERAL GRANTS ADMIN. (PSO AND EQUIPMENT ONLY)	DATE	TOTAL 7,195.10
AUTHORIZED SIGNATURE (ACCOUNTING) <i>[Signature]</i>	DATE 11/15/91	USE TAX % 3
AUTHORIZED SIGNATURE (ASSISTANT DIRECTOR) <i>[Signature]</i>	DATE 11/1/91	<i>[Signature]</i> 12/20/91

REQUESTING PROGRAM MUST COMPLETE ACCOUNTING DATA AND OTHER INFORMATION BELOW

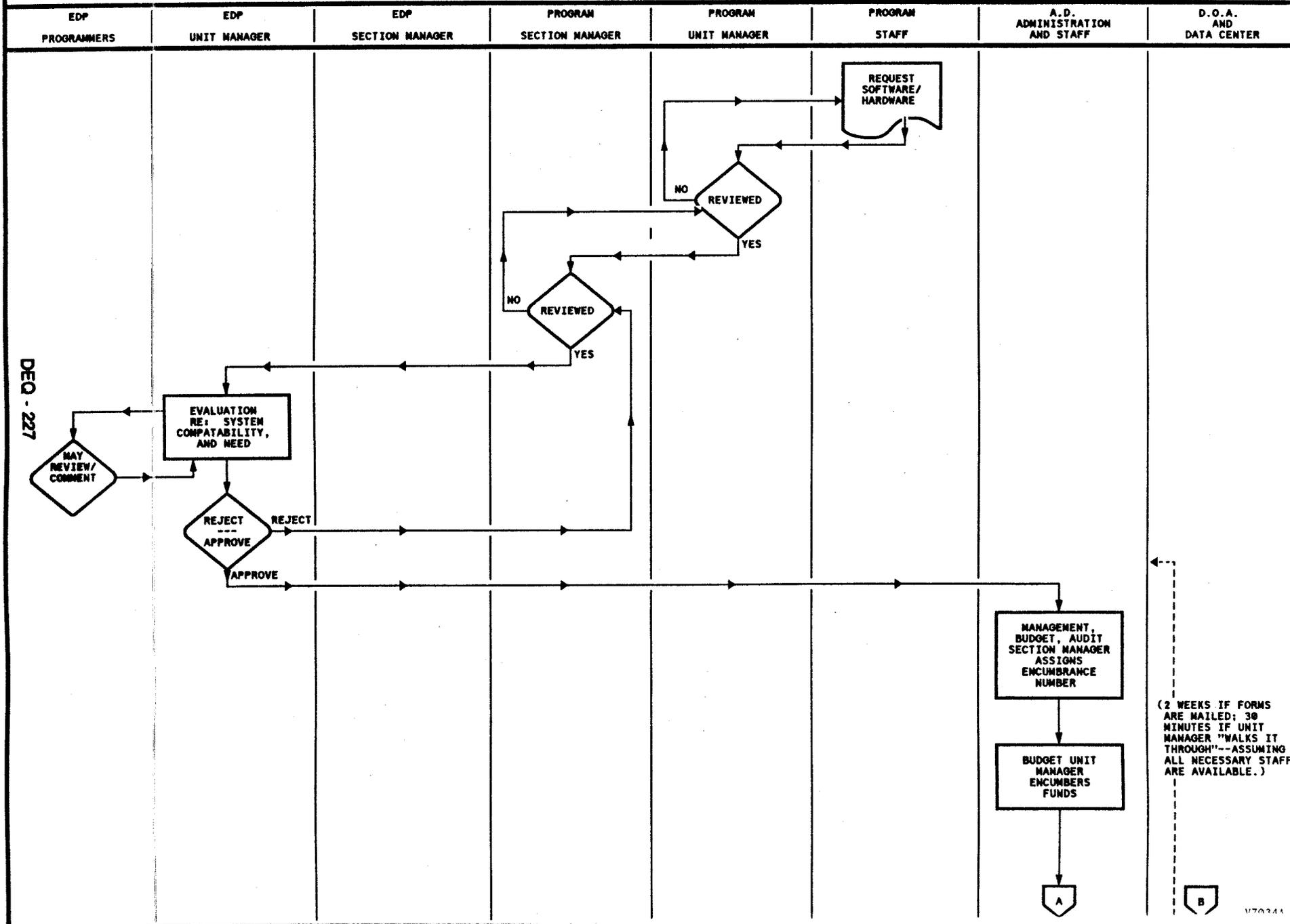
ORIG CODE	ACCOUNT	TASK	OPTION	ACTIVITY	COST CENTER	ESTIMATED AMOUNT
3283	see above				4-5-11	

SUGGESTED VENDORS Computerland - MAD. 702 N. 25th Drive Phoenix, AZ 85004 Attn: Shelby Flakerty	DELIVERY REQUIRED	INQUIRY SENT - OUE
	TERMS	APPROVED FOR ORDER DATE
	F.O.B.	BUYER QUOTED BY DATE

OFFICE OF ADMINISTRATION
 INFORMATION RESOURCES
 EDP EQUIPMENT PROCUREMENT PATH
 MANAGEMENT SECTION

EXHIBIT 71

PAGE 1 OF 2



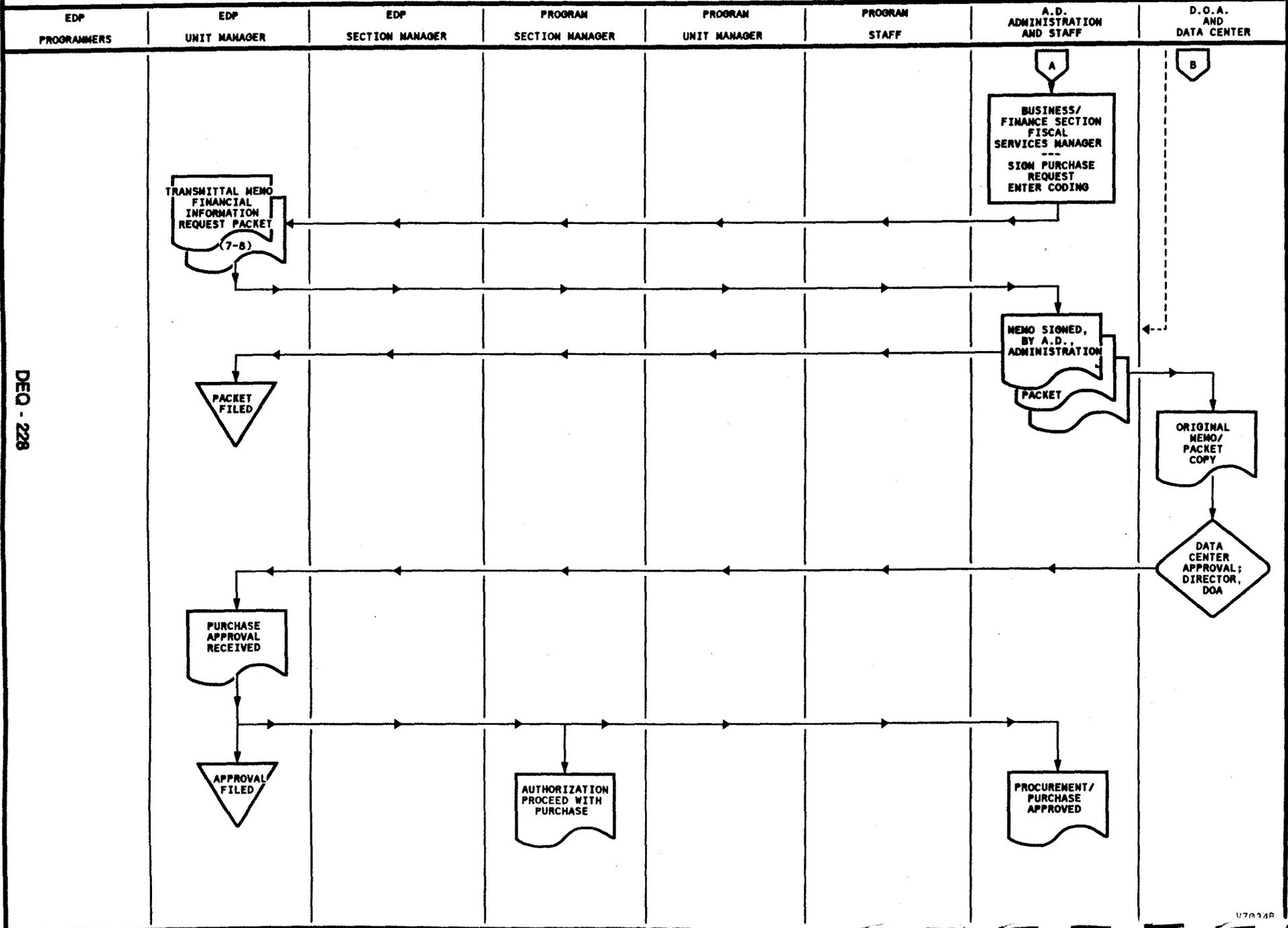
DEQ - 227

(2 WEEKS IF FORMS ARE MAILED; 30 MINUTES IF UNIT MANAGER "WALKS IT THROUGH"--ASSUMING ALL NECESSARY STAFF ARE AVAILABLE.)

A

B

OFFICE OF ADMINISTRATION
 INFORMATION RESOURCES
 EDP EQUIPMENT PROCUREMENT PATH
 MANAGEMENT SECTION



DEQ - 228

EDP MAINTENANCE CONTRACT RENEWALS

Current Situation

The Information Resources Management ("Automation") Section, Information Center Unit, is responsible for maintaining currency of all EDP-related equipment maintenance contracts, and ensuring they are properly renewed as needed so maintenance and repair service is always available on these items should the need arise.

There are four times during the fiscal year when maintenance contracts on EDP equipment routinely need renewal, depending on the type of equipment, the section in which it is located, and the fund source with which it was originally obtained. These are:

- July, when approximately nine to twelve contracts will be reviewed and renewed
- August, when there will be approximately ten contracts reviewed and renewed
- September, when approximately three to four contracts will be reviewed and renewed, and
- June, when approximately four to five contracts will be reviewed and renewed.

Each contract includes numerous items, with costs ranging from \$40 or \$50 to perhaps several hundred per year. For example, one Unit in the August billing expends approximately \$9,000; another expends about \$3,000. In total, the Department is spending about \$45,000 per year on these maintenance contracts for computer related equipment.

When the contract is due for renewal, the IRMS Information Center Unit Manager must compile a list showing machine type, model number, location and serial number, and forward that listing to the Section Manager where the equipment is charged. The Section Manager (or someone designated by the Manager) then checks each item of equipment against the inventory they possess, verifies it does exist in that area of responsibility, and responds whether or not they wish it to be continued on the maintenance contract.

Impact

The impacts of the current situation include the following:

- This total process, we are advised, requires nearly one full month of the Unit Manager's time, or one-third of her annual work time, to complete the time requirements for staff in each Section to review the lists submitted from Automation
- Decisions regarding a disability of retaining service contracts are made by technical or management personnel whose tasks are to deal with water, waste and air pollution and permit issues rather than by the professional employee whose job it is to manage that technical equipment (i.e., the EDP staff)
 - Such staff generally are ill-equipped to evaluate the cost effectiveness of obtaining or continuing a maintenance contract, gauged by the potential frequency of breakdown or needed repairs, and the cost of replacement versus repair

Recommendations

There are essentially two categories of recommendations based on the above observations, which are:

- By policy authorize the Information Center Unit Manager to be the responsible party for determining which items of EDP-related equipment are to be covered under a maintenance contract, with authority to delete those contracts determined not to be cost effective
- Provide Certified Technician training for two or three selected staff at the Compaq Corp. center in Denver, Colorado
 - Program cost: \$1,500 each participant
 - Air transportation, round trip (maximum) \$700 each

- Lodging, two nights, \$65 each
- Meals, incidentals, three days, \$35 each
- Total, three staff, \$7,305
- Sending only two staff, instead of three, will reduce that cost to approximately \$4,870
- Certified Technician staff then would provide direct service, maintenance and repairs to all EDP-related equipment for which their training qualified them
 - Essentially that will include all but the big SUN and DEC servers and some highly technical equipment.

Benefits

The benefits to be obtained from these recommendations include:

- Savings of approximately \$30,000 (State funds) through elimination of maintenance contracts not considered to be cost effective
- Save approximately three of the four months now estimated to be annually spent on the contract renewal process, equating to \$11,034 (one-fourth of a pay grade 20 compensation package), time which can then be re-directed to managing the Unit
- Annual savings of approximately \$5,000 by providing the Certified Technician training
 - Off-set in the first year by the training cost, which essentially will create a "wash;" thereafter the savings would be creditable.

Implementation

Implementation steps for these recommendations include:

- An administrative policy decision to place contract determination policy within the automation group
- Cancellation of unnecessary maintenance contracts on their next renewal cycle
- Make arrangements for training two or three staff, and for obtaining diagnostic and repair tools
- Time frame: Approximately 2 months.

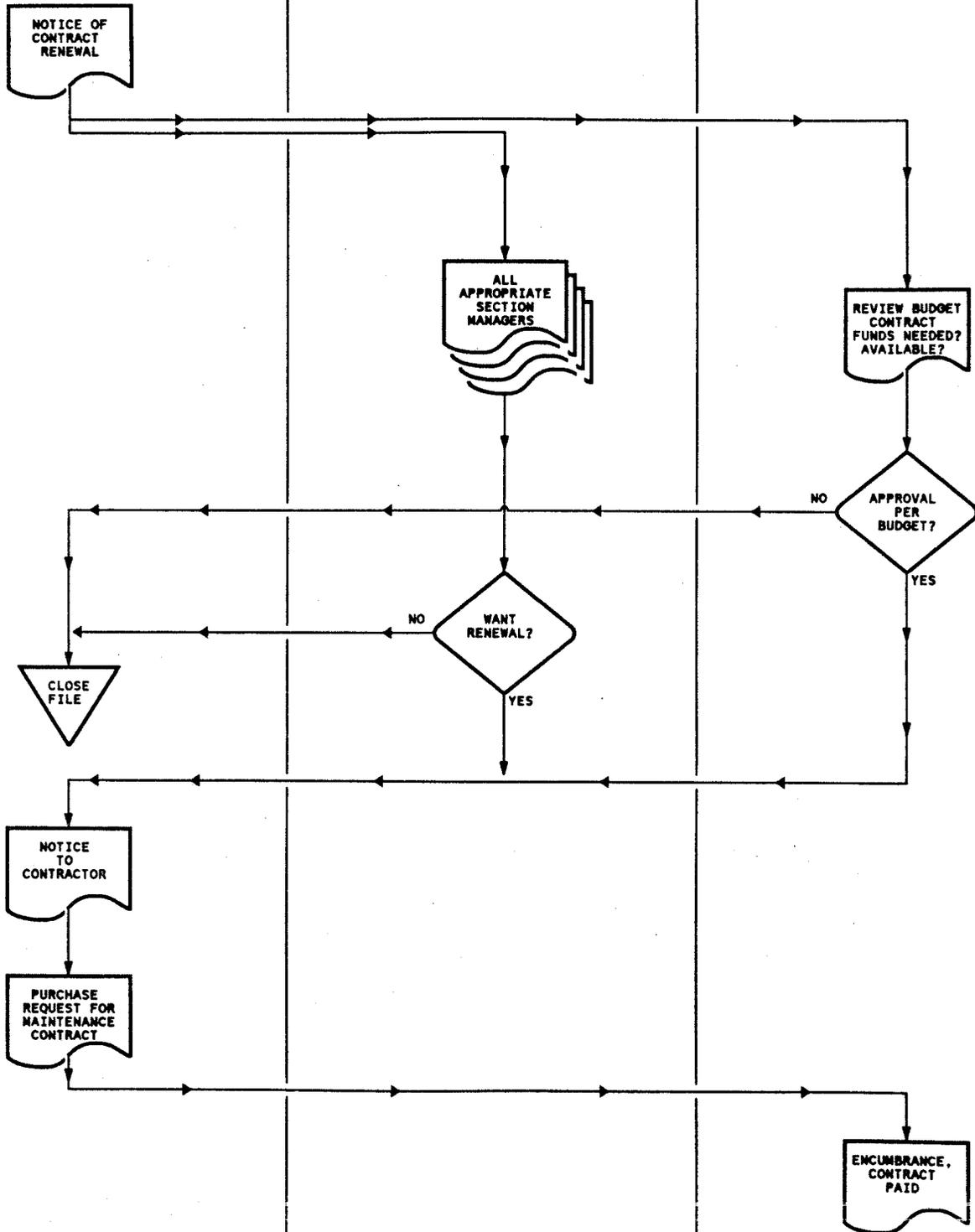
AUTOMATION - MAINTENANCE CONTRACT RENEWAL PROCESS FLOW CHART

EXHIBIT 72

AUTOMATION
MAINTENANCE CENTER
CONTRACT MANAGER

PROGRAM
SECTION MANAGERS

ADMINISTRATIVE DIVISION
BUDGET UNIT MANAGER



DEQ - 233

PAYROLL UNIT

Current Situation

The Payroll Unit of the Business and Finance Section is responsible for payroll activities for the Department. General activities performed by this unit include processing of the labor activity reports system (LARS), which is the basis for employee wages paid; dismissals; terminations and retirees; new hires; transfers and reinstatements; rate changes; various forms for miscellaneous administrative purposes; miscellaneous payroll work such as updating payroll tables, corrections input, and amendments.

This unit is authorized four FTEs plus one temporary employee. The number of personnel served by the Payroll Unit is approximately 550 at the present time (see Exhibit 79, Business & Finance Section, Current Organizational Chart).

Time charges on work activities is recorded by specific sites. However, the current EDP system does not have the capability to retrieve site specific man-hour data for use by managers or the Cost Recovery Unit. In order to obtain employee time charged to a project site for cost recovery billing purposes the LARS must be manually pulled and examined by Cost Recovery Unit personnel.

Approximately 25%, or 138 of the 550 payroll personnel, are split funded, i.e., the time is charged to two or more fund codes. Care has to be exercised by the payroll personnel to compute correct fund man-hour charges.

Interviews with Unit personnel revealed that no standard operating procedures or work standards exist, except for the forms completion instructions. Further, very little training has been given to supervisors and operating personnel for completing the LARS forms.

Impact

The Payroll Unit is the central repository for all payroll related activities within the agency. A file is maintained on each employee containing current and historical information relating to payroll, leave and work information. Leave requests are forwarded with the LARS form and held in the Payroll Unit. No use is made of leave requests except to check the leave information against the LARS form.

The review and approval of leave is a function of supervision and such records should normally be maintained in the employees' work unit. This data is used as a part of the employee performance evaluation. Unless a separate record is kept at the work unit this information is not readily available to the supervisor.

The lack of any kind of job standards makes it difficult for a supervisor to assess employee performance or determine staffing requirements based on work load.

Information available from other State Agencies indicate that for the number of FTEs serviced in Payroll, this Unit is staffed higher than most. Standards available from other agencies indicate that one FTE should be able to handle the payroll activity for 550 FTEs. It should be noted that all State agencies follow the same procedures in performing the payroll process. Split funding is not unique to DEQ, in that several State agencies have the same situation.

Recommendations

We recommend achieving greater efficiency and utilization of personnel through the following steps:

- Provide supervisory training on the LARS process
- Establish standard operating procedures to be followed in the Payroll Unit
- Establish work standards within the Payroll Unit to be used as a basis for employee evaluation and to determine future staffing requirements within the unit
- Reduce the staffing of the Payroll Unit from four budgeted positions to two Acct Tech II
- Retain the leave request forms within the operating unit.

Benefits

Implementation of the above recommendations will result in:

- Reducing the error rates evidenced on the LARS reporting, thereby increasing the efficiency and effectiveness of the Payroll Unit
- Written procedures ensuring consistency of process, as well as a training source for new personnel
- Availability of the leave forms at the supervisory level within the work unit for better control and analysis of employee attendance
- A reduction of two Acct Tech IIs, Grade 11 - \$35,670 in savings (State funds).

Implementation

Estimated time line for implementation is 60 days and will require:

- Update of policy and procedures documents
- Update of organization manual
- Processing personnel action documents

SHITH
ASSISTANT DIRECTOR - OA
S 0008 NC

BUSINESS & FINANCE SECTION

BEISSEL
DEQ COMPTROLLER
S 0711 NC

GOEBEL (S/D)
FIS SVS MGR II
S 0625

VACANT
ADM SECT I
I 0629

ACCOUNTING UNIT

* PROPOSED *
* FIS SVS UNIT MGR *
* A50 *

ACCOUNTS PAYABLE UNIT

BORRMAN
FIS SVC SP III
I 0239

ACCOUNTS RECEIVABLE UNIT

THOMPSON
FIS SVC SP III
U 0196

PAYROLL UNIT

PRANTZ
ACCT SUPP UNIT SUPV
I 0237

COST RECOVERY UNIT

* PROPOSED *
* FIS SVS C/A MGR *
* A56 *

DEQ - 237

GAYFORD
FIS SVS SP IV
S 0685

* PROPOSED *
* FIS SVS SP V *
* A51 *

LAHGLE
ACCT TECH II
I 0215

RANKIN
ACCT TECH III
S 0630

TURNO
ACCT TECH II
S 0208 4*

THOMAS
ACCT TECH III
S 0633

* PROPOSED *
* FIS SVS C/A SP *
* A57 *

* PROPOSED *
* FIS SVS C/A SP *
* A58 *

SHAPER
PIH CNSLT I
U 0166

* PROPOSED *
* FIS SVS SP IV *
* A52 *

CAMP
ACCT TECH II
S 0642

VACANT
ACCT TECH III
U 0233 4*

PARRY
ACCT TECH II
S 0634

MAJLISH
ACCT TECH II
I 0631

SAMS (S/D)
FIS SVS SP III
S 0238 4*

RHYNER
ACCT TECH III
I 0127

DERNER
BUD CONT DEV SP II
I 0627

ATHALYE
FIS SVS SP II
I 0216

VACANT
ACCT TECH III
I 0126

* PROPOSED *
* ACCT TECH III *
* A53 *

HARDIN
ACCT TECH III
T 0219

McCULLEY
ACCT TECH II
I 0632

RODRIGUEZ
ACCT TECH III
S 0195 4*

* PROPOSED *
* ACCT TECH II *
* A59 *

JOHNSON
FIS SVS SP I
S 0644

SCHMIDT (S/D)
FIS SVS SP II
I 0143

JONES
ACCT TECH II
I 0626

DAVIS
ACCT TECH II
I 0217

VACANT
ACCT TECH III
O 0774

(S/D)
ACCT TECH II
U 0197

* PROPOSED *
* IPS II *
* A60 *

VACANT
FIS SVS SP I
S 0628

* PROPOSED *
* ACCT TECH II *
* A54 *

RODRIGUEZ
IPS II
S 0218

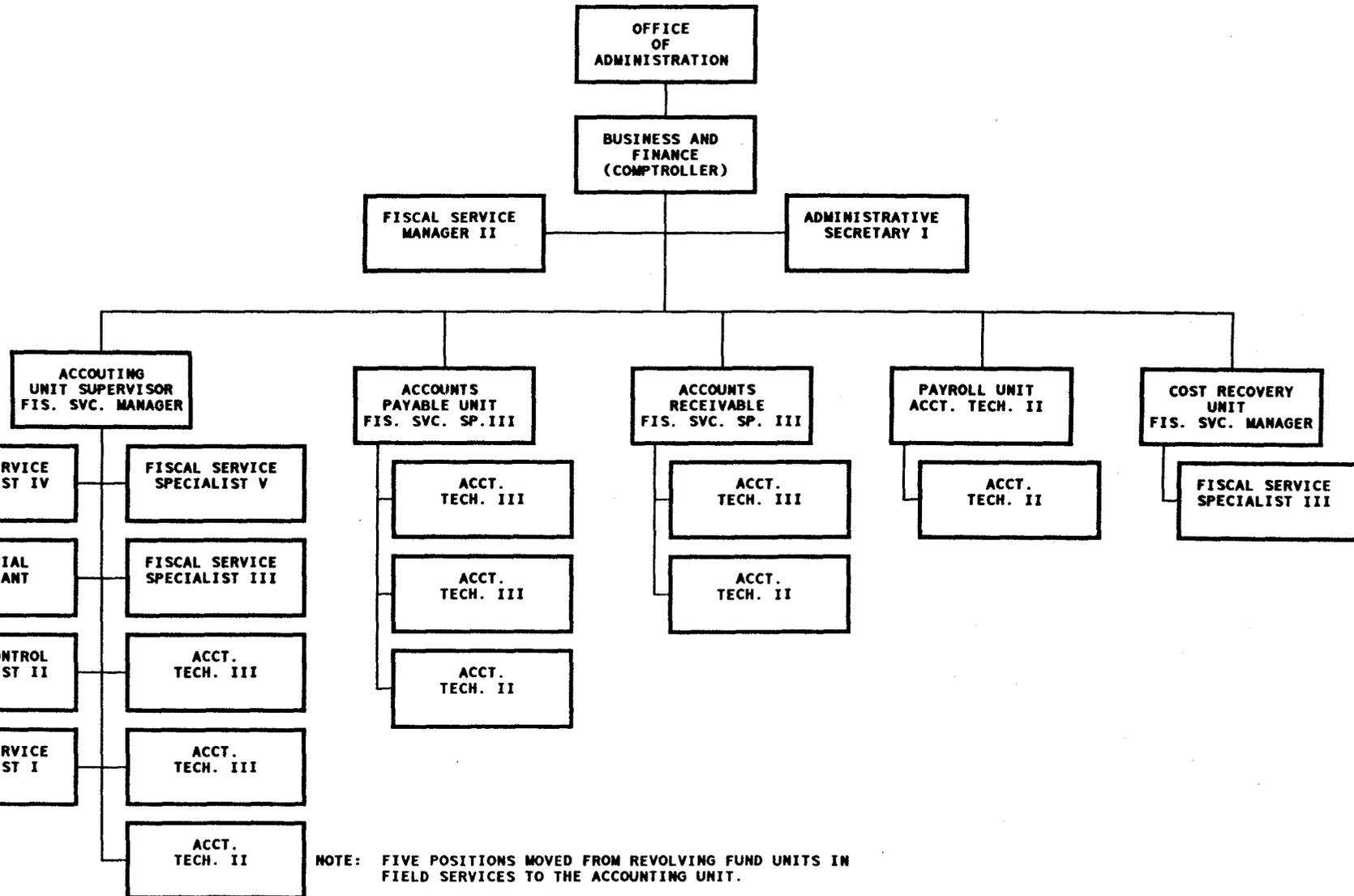
VACANT
IPS II
U 0198

TRIGOTEN
CLK TYP II
U 0199

OFFICE OF ADMINISTRATION, BUSINESS & FINANCE SECTION PROPOSED ORGANIZATIONAL CHART

EXHIBIT 75

DEQ - 238



NOTE: FIVE POSITIONS MOVED FROM REVOLVING FUND UNITS IN FIELD SERVICES TO THE ACCOUNTING UNIT.

ACCOUNTS RECEIVABLE

Current Situation

The Accounts Receivable Unit of the Business and Finance Section is responsible for accounts receivable activities for the department. The unit is authorized seven FTEs including a vacant Account Technician III position (see Exhibit 69, Business & Finance Section, Current Organizational Chart).

There are 30 programs. Payments for nine programs come in the mail (see Exhibit 76, Accounts Receivable, Quarterly Billing, Flow Chart). Six payments are paid annually, two quarterly and one is on-going (monthly).

Blank invoices are mailed to the customer, who fills in the invoices and mails them back along with the checks to the Accounts Receivable Unit of the DEQ. When the checks are not received on time, a second notice is sent to the customer. This is done manually which requires a lot of time (not quantifiable).

The other 21 program's fees are collected by the program workers in their sections which are then brought over to the Accounts Receivable unit where a receipt is written.

There are some transfers from other agencies that are also handled by the Account Receivable department. The agencies collect their fees, keep their portions and transfer the portion owed to DEQ.

Impact

Approximately 150-200 envelopes with checks arrive daily. Two people are assigned to open these envelopes and handle the invoices and checks. An envelope takes about 20 seconds to open, verify numbers and set aside. This amounts to about 67 minutes per day. Since there are two people involved, and we were told it is a policy that there have to be two people involved for internal control purposes and, the mailing portion of the work can be done in less than an hour. Of the 16 hours available between the two Account Techs who handle the mail, they have more than 15 hours available to handle other workload like doing transfers, sending second notices, issuing receipts on the program fees collected, and entering data in the EON system.

Entering data into spreadsheets by the Supervisor and the IPS (see Exhibit 76, Accounts Receivable, Quarterly Billing, Flow Chart). Information Processing Specialist, Flow Chart) is a duplication of effort.

Sending the credit/debt memo to the Comptroller for approval is unnecessary, and requires extra handling by the Supervisor.

Sending second notices to the customers manually is time consuming and is not capable of capturing all the customers in a timely manner.

Recommendations

We recommend achieving greater efficiency and utilization of personnel through the following steps:

- Train the Account Techs who handle the mail to use the LOTUS spreadsheet and perform the whole process
- Develop a new database system so data is input only once
- Eliminate the routing of Credit/Debit memo to the Comptroller
- Eliminate one vacant Acct. Tech. III, one filled Acct. Tech. III, one filled IPS II, and one Clerk Typist II.

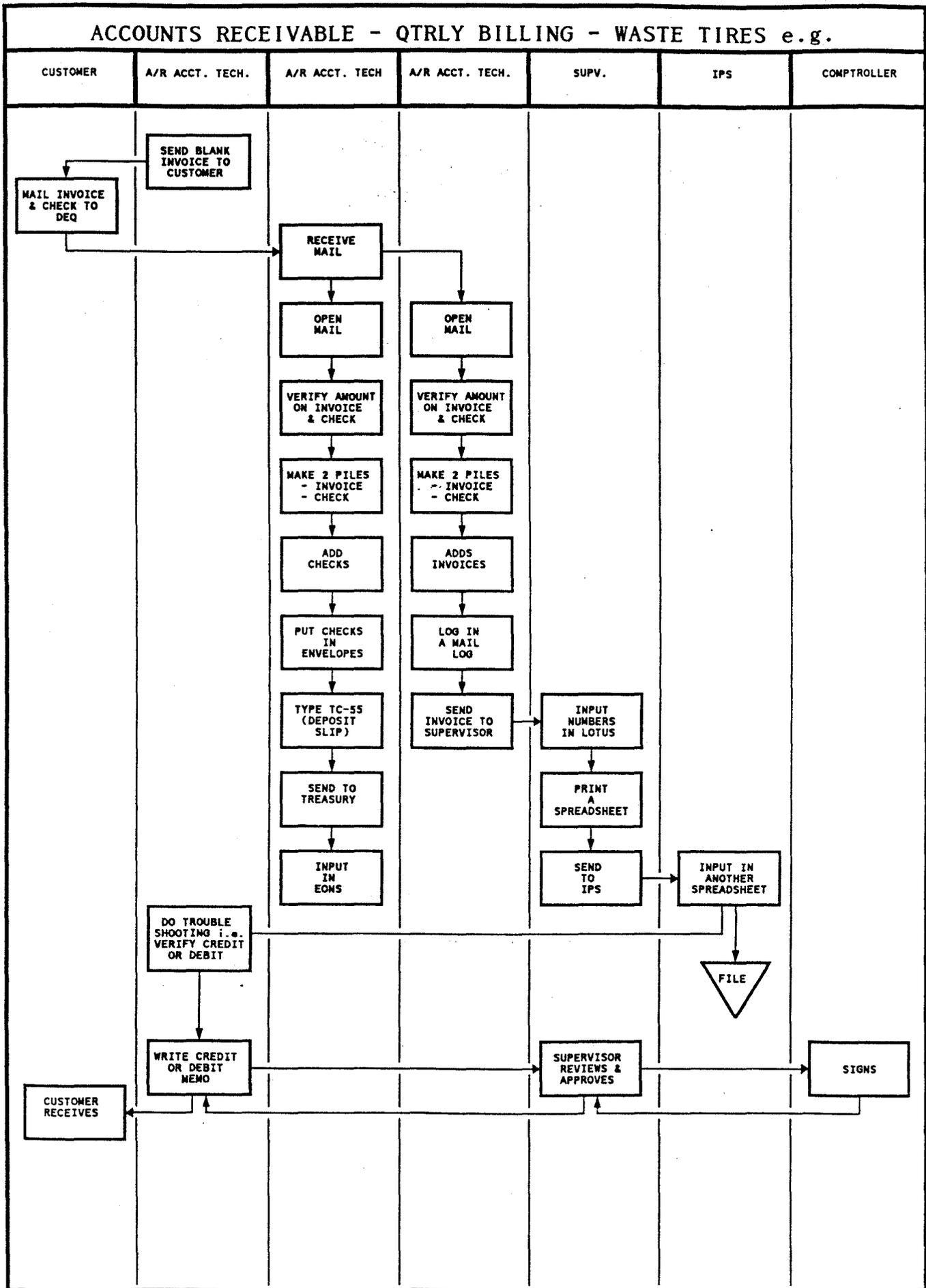
Benefits

- The new database will print second notices to late customers automatically which will save manual labor hours (not quantifiable) and improve efficiency in collecting late fees
- Will avoid duplication of data input in spreadsheets
- Will save routing time by eliminating extra handling of Credit/Debit memo
- Cost avoidance of one vacant Acct. Tech. III, \$20,773 (State funds)

- Cost reduction of one filled Acct. Tech. III \$20,773 , one filled IPS II \$18,101, and one Clerk Typist II \$16,935 (Other funds)
- Total savings of \$76,582.

Implementation

- Teach Lotus spreadsheet to the Acct. Techs.
- Develop new data base
- Time frame: Approximately 60 days.



ACCOUNTING UNIT FUNCTIONS

Current Situation

This Unit operates under the Comptroller, Business and Finance Section. There are ten positions assigned, budgeted or proposed in the organization, as of January 1, 1992. Of these ten positions, five were filled, three are proposed, one was vacant, and one person was assigned on special duty to the Cost Recovery Unit.

The general functions of this Unit are financial reconciliations, general ledgers, grants, financial reporting and special projects. During the study there was no indication of a significant backlog of work. Peaks in work appear on a cyclical schedule, especially during the monthly, quarterly and annual reporting periods.

Impact

Although the man-hours could not be quantified, interviewed personnel indicated that a considerable amount of time was spent on special projects research and documentation. An example is the State Legislation Impact Assistance Grant (SLIAG), which studied the environmental impact from illegal aliens. Projects of this type are never questioned, since federal funds were received.

The financial record keeping on some revolving fund activities is performed in the Field Services Section of Water Quality. In addition, this Section performs monitoring of the revolving fund projects. This function in the Field Services Section is incompatible with the balance of that Section's responsibilities. This subject was discussed briefly in the Recommendation "The Revolving Fund Unit Transfer." Five positions would be involved in this transfer.

The workload in the Accounting Unit is such that filling the proposed, vacant and special duty transferred positions does not appear fruitful. However, the transfer of five positions and functions from the Field Services Section would retain a level of ten positions.

The combination of the revolving fund workload from the Field Services Section and the Accounting Unit workload will require these ten positions, resulting in a surplus of those five positions mentioned above.

Recommendations

We recommend the following:

- All general financial accounting functions within DEQ be accomplished in the Accounting Unit
- Reduce the currently authorized and proposed positions within the Accounting Unit by five, excluding those being transferred from the Field Services Section.

Benefits

The following benefits will accrue upon implementation of these recommendations:

- General financial accounting functions will be performed in a central location, enhancing the efficiency and productivity of those functions
- Special studies and projects accepted or initiated will have a positive impact on improving the environment rather than expending tax dollars on projects which are of questionable value
- Reduction of the identified authorized and proposed positions for a savings as follows:
 - Four proposed/vacant positions of Acct Tech II at \$71,246
 - One filled position, for a direct saving of \$39,559 per year
 - Total savings and avoidance of \$110,805 annually (State funds).

Implementation

Estimated time line for implementation is 60 days and will require:

- Revision of manuals and memos to reflect appropriate changes

- Organization up-date
- Personnel actions as appropriate.

COST RECOVERY PROCESS

Current Situation

The Cost Recovery Unit in the Business and Finance Section is responsible for recovering costs incurred by the State in correcting activities detrimental to the environment in the areas of air, water, and waste. In those cases where corrective action is necessary and the company either can not or does not take corrective action, the State will clean up the project and bill the offending company or persons for the costs incurred. Costs to be recovered include labor and payroll-related costs, non-personnel related costs and costs incurred by independent contractors hired by the State.

This Unit had five budgeted positions as of January 1, 1992. One of these positions was vacant. There are also five positions which are proposed for future hiring. One person is assigned as Acting Supervisor until that position is permanently filled (see Exhibit 69, Business & Finance Section, Current Organizational Chart).

Funds utilized for the clean-up of hazardous waste sites come from two sources: the Federal Environmental Protection Agency (EPA) through grants, and from the State of Arizona. State funds include the Water Quality Assurance Revolving Fund (WQARF) and state general funds.

Federal grant expenditures are currently being audited by the EPA Inspector General. Most of the work effort within the Unit has been directed toward resolving the problems outlined by the EPA, leaving very little time for collecting costs incurred on projects funded by the State.

Under the present system the personnel costs charged to projects are reported on the employee's time sheet or Labor Activity Reporting System (LARS). There is no way, other than manual, to transfer the site specific cost data from LARS to a system or format needed by the Cost Recovery Unit for billing purposes. Each LARS form has to be individually received and the data manually entered on the Cost Recovery Unit spread sheets. According to the personnel interviewed, the time required to perform the data collection and data transfer function utilizes approximately 90% of the Cost Recovery Unit's available hours. There are currently 240 sites subject to cost recovery actions with an additional 900 expected within the next 12 months, according to Unit personnel. The later figure could not be verified but was used as best estimate of the future workload. Further, it was estimated that a new computerized system allowing access to the payroll system would be on line approximately July 1, 1992.

Impact

The current process utilized to obtain site specific charges from the time sheets is extremely labor intensive. This has been recognized by management and forms the primary justifications for the soon to be installed computerized system. These FTEs have, in the past, performed all work involved in this process. Recently an additional FTE was added to assist and one budgeted position remains unfilled. Five proposed, but unbudgeted, positions were requested, on the basis of the current and projected workload, following the process as currently utilized.

The advent of a computerized cost identification for site specific projects should reduce the man-hour requirement by approximately 90%, which will allow the processing of the expected 900 cost recovery projects to be processed in less time than required for the 240 sites currently under construction. The gross amount of recoverable costs presently on the books is approximately \$10.0 million. Additional personnel, if assigned immediately, would do little to reduce the number of outstanding cases under the present process. Training time should be sufficient to keep errors at a minimum and would coincide with the availability of the computer system. At that time the staff would be faced with a reduction in force to match FTE's with workload and process.

Based on best estimates the site specific cost recovery action, under the new computerized system, would require the services of two FTEs for both Federal and State funded projects. This will eliminate the necessity to fill the one vacant budgeted position and five proposed positions as well as reduce the filled positions from four to two positions. Reducing the filled positions could take place on June 30, 1992 or upon installation of the computerized system discussed herein.

Recommendation

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Implementation of the computerized system for compiling cost data for cost recovery actions at the earliest possible date
- Eliminate the five proposed positions
- Eliminate the one vacant budgeted position

- Eliminate two of the currently assigned budgeted positions
- Maintain two positions (FTEs) to process both Federal and State cost recovery action (see Exhibit 80, Business & Finance Section, Proposed Organizational Chart).

Benefits

Implementation of the above recommendations will result in the following:

- Transition of all manual research and transfer of site specific cost recovery data from payroll files to cost recovery spread sheets, making presentation and calculations instantaneous, eliminating the laborious process now being used
- Direct savings of \$35,623 per year in personnel cost, by eliminating two filled positions (\$17,811 include ERE x 2 = \$35,623)
- A budgetary cost avoidance for the vacant position amounting to \$17,811 per year
- A cost avoidance for the five proposed positions amounting to per year (\$17,811 each including ERE x 5 = \$89,055)
- A total cost savings and avoidance of approximately \$142,489 per year (\$35,623 + \$17,811 + \$89,055 = \$142,489). State funds \$53,434; Other funds \$89,055.

Implementation

Estimated time line for implementation is 60 days after installation of computers requiring:

- Revision of organization, policy memos, procedures, and related documents
- Processing personnel actions
- Installation of the computer to be completed by July 1, 1992.

PROCUREMENT

Current Situation

The Contracting and Procurement Section of the Office of Administration is responsible for procurement and contracts for the agency. This Section is authorized eight budgeted FTEs. There are three Contract Management Specialists, three Buyers, one Clerk Typist and one Information Processing Specialist [IPS], (see Exhibit 73, Contracting, General Services and Human Resources Sections, Current Organizational Chart).

The current process of commodity buying is shown in Exhibit 77, Commodities Procurement Process, Current Flow Chart. There are approximately 30 - 50 purchase orders (P.O.s) printed daily. Purchase orders are printed in batches of 25 and are printed by the Accounts Payable department. Last year, 8,500 purchase orders were processed. This year about 5,000 purchase orders will be processed.

Impact

As mentioned above, there are three Buyers. If 30 purchase orders are processed daily, then each Buyer is processing 10 purchase orders on an average. The purchase orders are printed by the Account Technician in the Accounts Payable Unit, Business and Finance Section, and are then sent back to the Buyers. The IPS logs more or less the same kind of information that the Buyer is already logging, which is duplication of work.

The standard to process a P.O. is 12.5 minutes at some of the other agencies, such as ADOT. Similar procedures are followed in DEQ. 12.5 min. times 5,000 P.O.s equals 1,042 hours. This indicates less than one FTE is required to process the projected volume of P.O.s (see Exhibit 78, Commodities Procurement Process, Proposed Flow Chart).

Recommendations

Given the volume of purchase orders processed, we recommend the following:

- Transfer the purchase order printing function to the Buyer

- Eliminate the duplicate logging done by the IPS
- Eliminate two Buyers at \$51,041 (including ERE)
- Eliminate one IPS II at \$21,393 (including ERE)
- Total savings of \$72,434

Refer to Exhibit 86, Office of Administration, Proposed Organizational Chart .

Benefits

- Better utilization of the staff
- Total savings of \$72,434 in cost reduction (State funds \$51,041; Other funds \$21,393)
- Savings are predicated to changing legislation that will allow up to \$20,000 limit for bid approval by buyers of the Agency vs. going to DOA for approval.

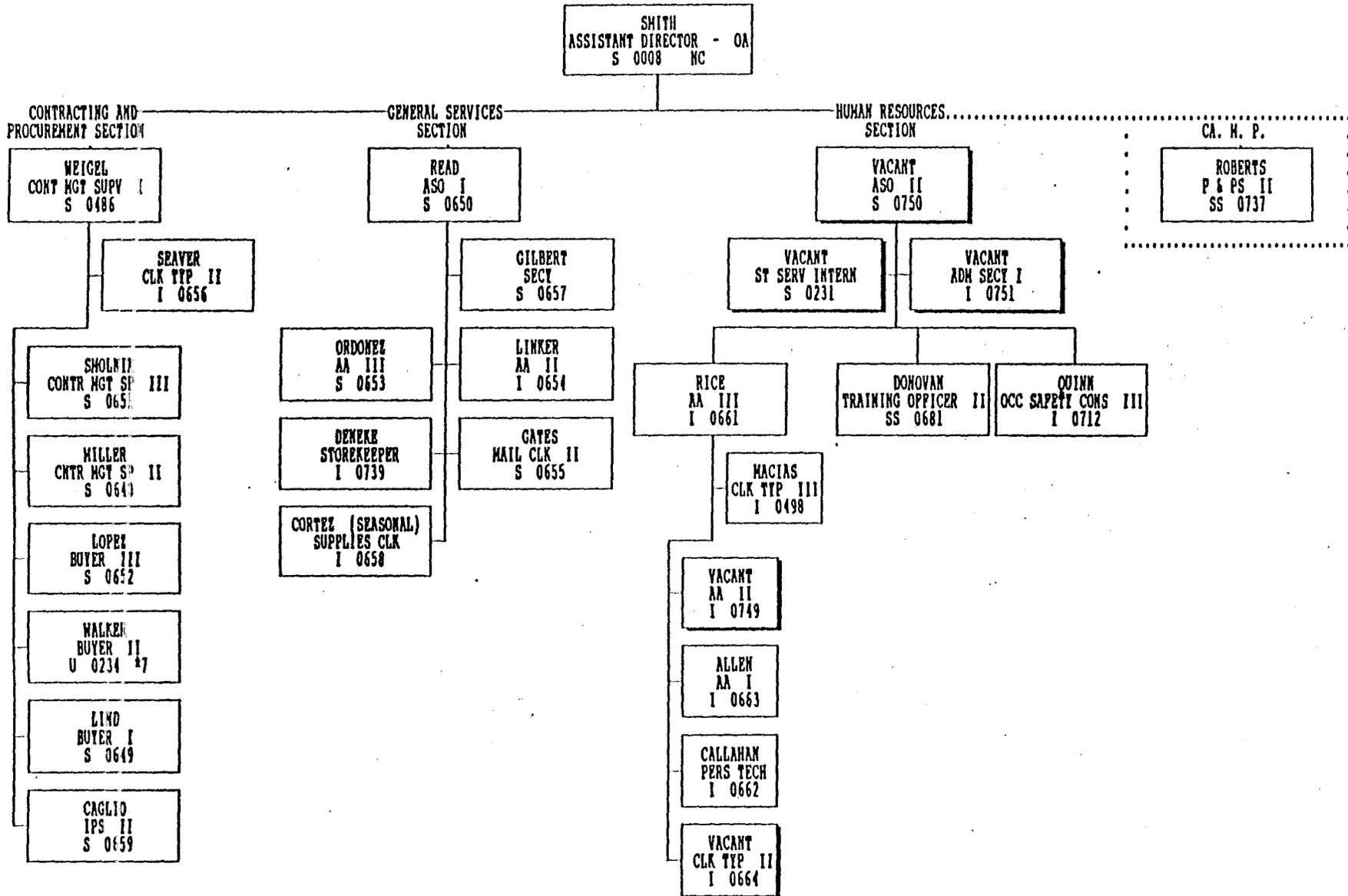
Implementation

To implement this recommendation requires the following steps:

- Establish work measurement control to achieve the processing speed
- Transfer the printing function
- Eliminate double logging
- Eliminate the Buyer and IPS positions
- Time frame: 2 months.

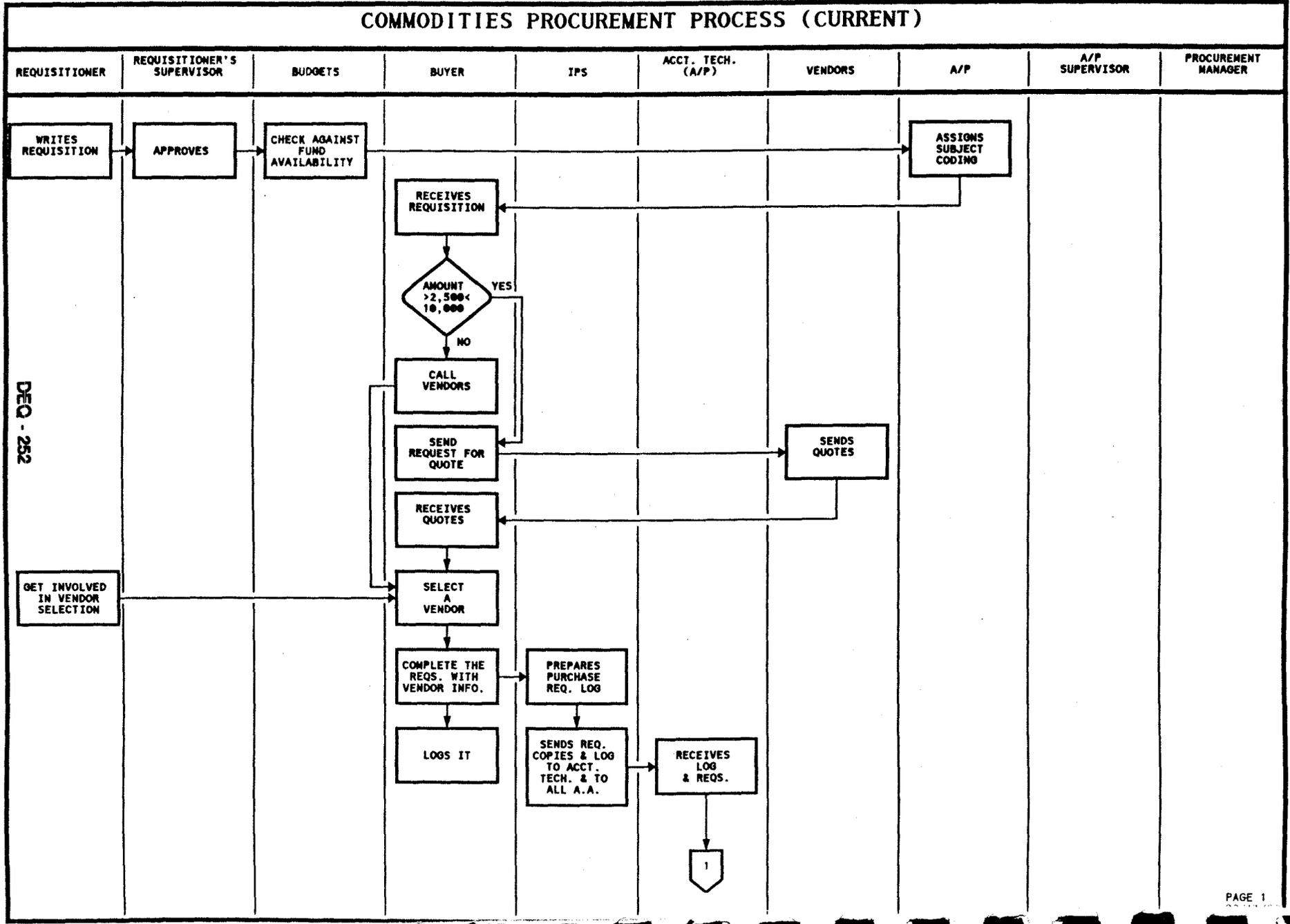
DEPARTMENT OF ADMINISTRATION
OFFICE OF ADMINISTRATION
JANUARY 01, 1992

EXHIBIT 73



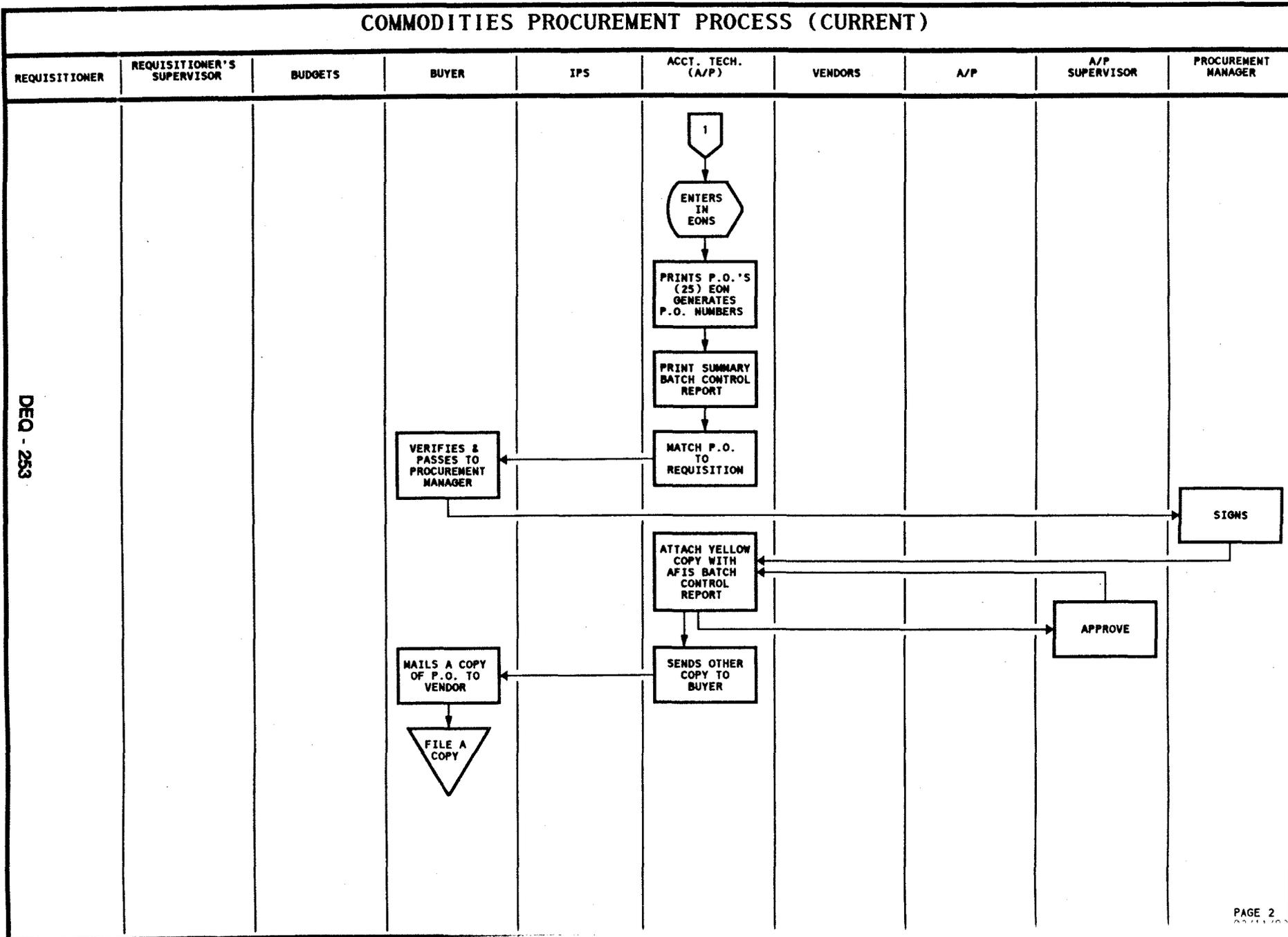
DEO - 251

COMMODITIES PROCUREMENT PROCESS (CURRENT)



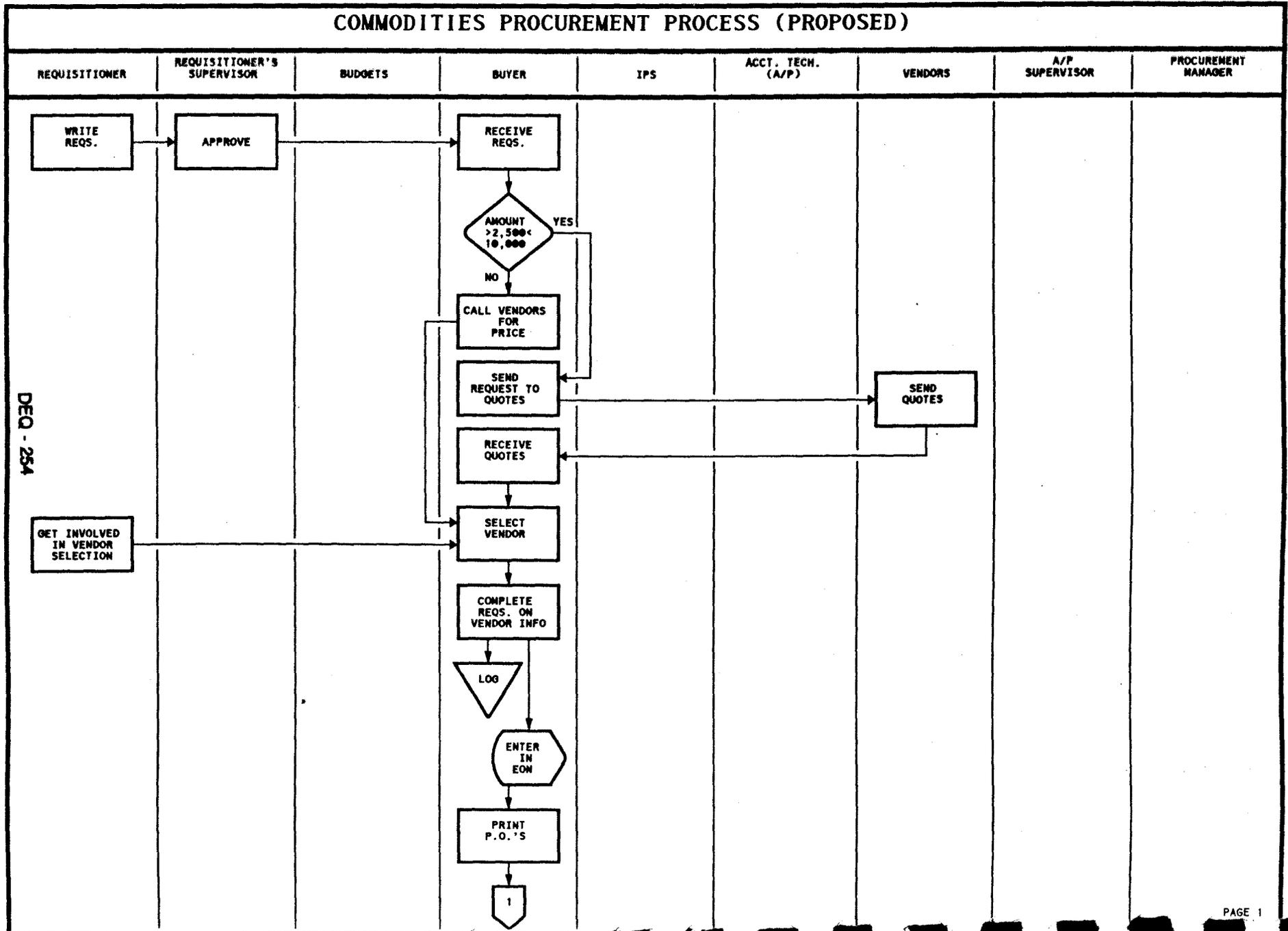
DEC - 252

COMMODITIES PROCUREMENT PROCESS (CURRENT)



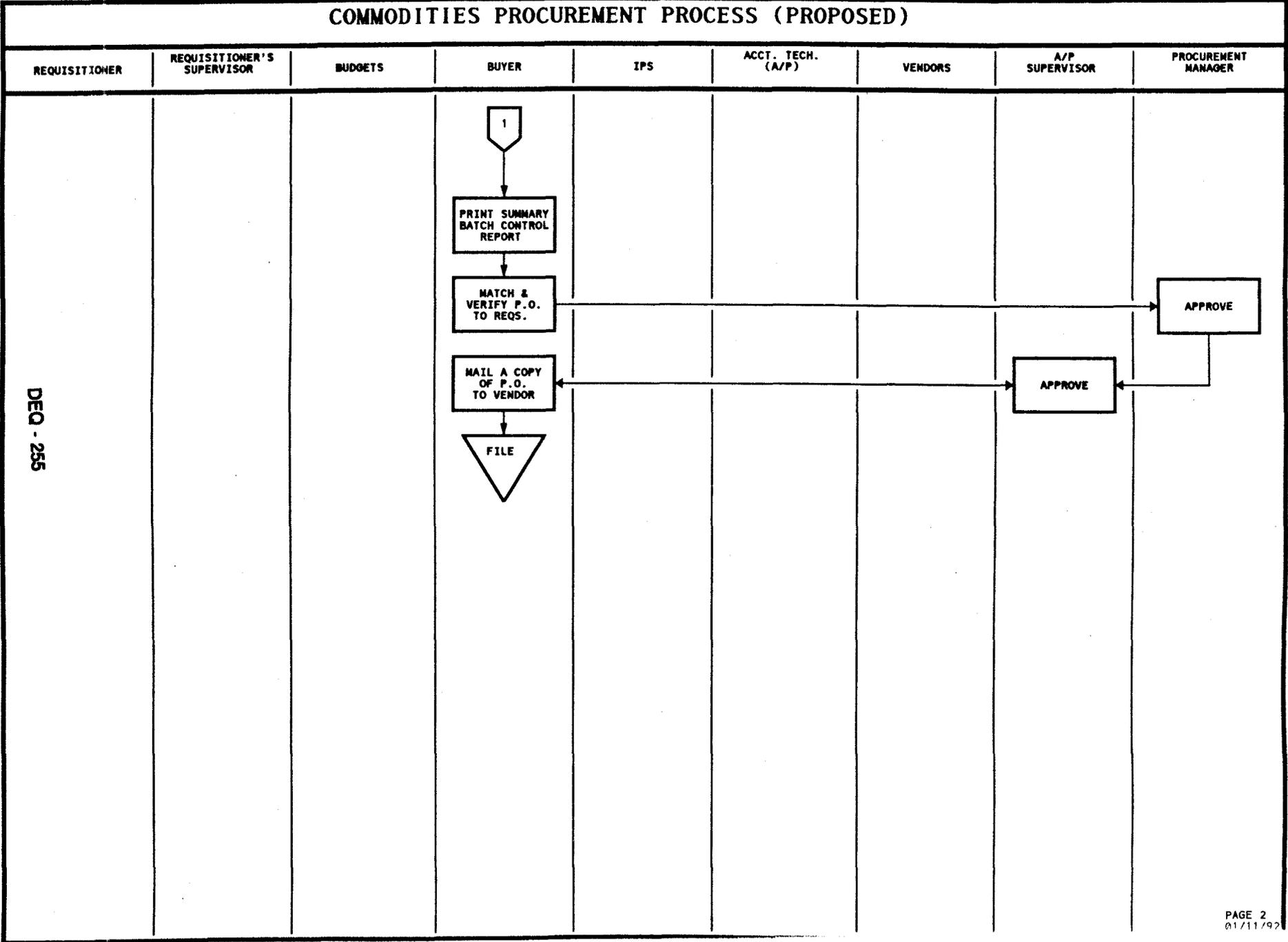
DEC - 263

COMMODITIES PROCUREMENT PROCESS (PROPOSED)



DEQ - 254

COMMODITIES PROCUREMENT PROCESS (PROPOSED)



ACCOUNTS PAYABLE

Current Situation

The Accounts Payable Unit of the Business and Finance Section is responsible for accounts payable activities for the agency. The unit is authorized ten FTEs of which two are vacant and two are proposed. Additionally, there are two temporary workers who come in and help out with the filing and other miscellaneous work (see Exhibit 74, Business & Finance Section, Current Organizational Chart).

The Accounts Payable Unit's primary functions are vendor claims (payments), expenditure transfers between agencies, contract payments, travel purchase orders and advances, transfers for store-room supplies and purchase orders printing (see Exhibit 79, Payment Process, Accounts Payable, Current Flow Chart).

There were approximately 10,000 claims (warrants or checks) processed which includes vendor, contract and travel payments; 8,500 P.O.s printed; and 653 expenditure transfers made between the agencies last year. This year, the number of P.O.'s will be approximately 9,000.

One person is assigned to process vendor payments, one person is assigned to process contract payments, one person is assigned to print P.O.'s, and the other two persons work closely on travels, expenditure transfers, change orders, and transfer of store-room supplies.

Impact

The verification of invoices with the receipts and P.O.'s is done four times. Quality control check was the reason given for verifying so many times. This is a duplication of effort. Based on 10,000 claims per year, approximately 45-50 payments are processed daily. Payments are processed in a batch of 25 before it is sent to the DOA (Department of Administration). This equals one batch of 25 payments per person or 8 man-hours per batch or about 20 minutes per payment. This represents an unusually high amount of time expended per payment per person.

The amount of FTE time required to process travel activities is about 20%. Store-room supplies, expenditure transfers, and change orders take another 50% of an FTE time. Clerical activities use up about 30% of an FTE equivalent.

Recommendations

We recommend achieving greater efficiency and utilization of personnel through the following steps:

- Assign only one person to process the payments and send the paper work to the Supervisor for approval once just before it is ready to go to the DOA
- Assign one person to do expenditure transfers, store-room supplies transfers, travel related activities, change orders and other clerical activities
- Transfer the P.O. printing function to the Procurement Unit (see Recommendation entitled Procurement)
- Eliminate one filled Acct. Tech. II position (\$18,101)
- Eliminate two vacant Acct. Tech. III positions (\$40,880), one proposed Acct. Tech. II (\$18,101), and one proposed Acct. Tech. III position (\$20,440).

Benefits

- Better utilization of the existing personnel
- Cost avoidance of \$ 79,421 (State funds)
- Cost reduction of \$ 18,101 (Other funds)
- Total savings of \$97,522.

Implementation

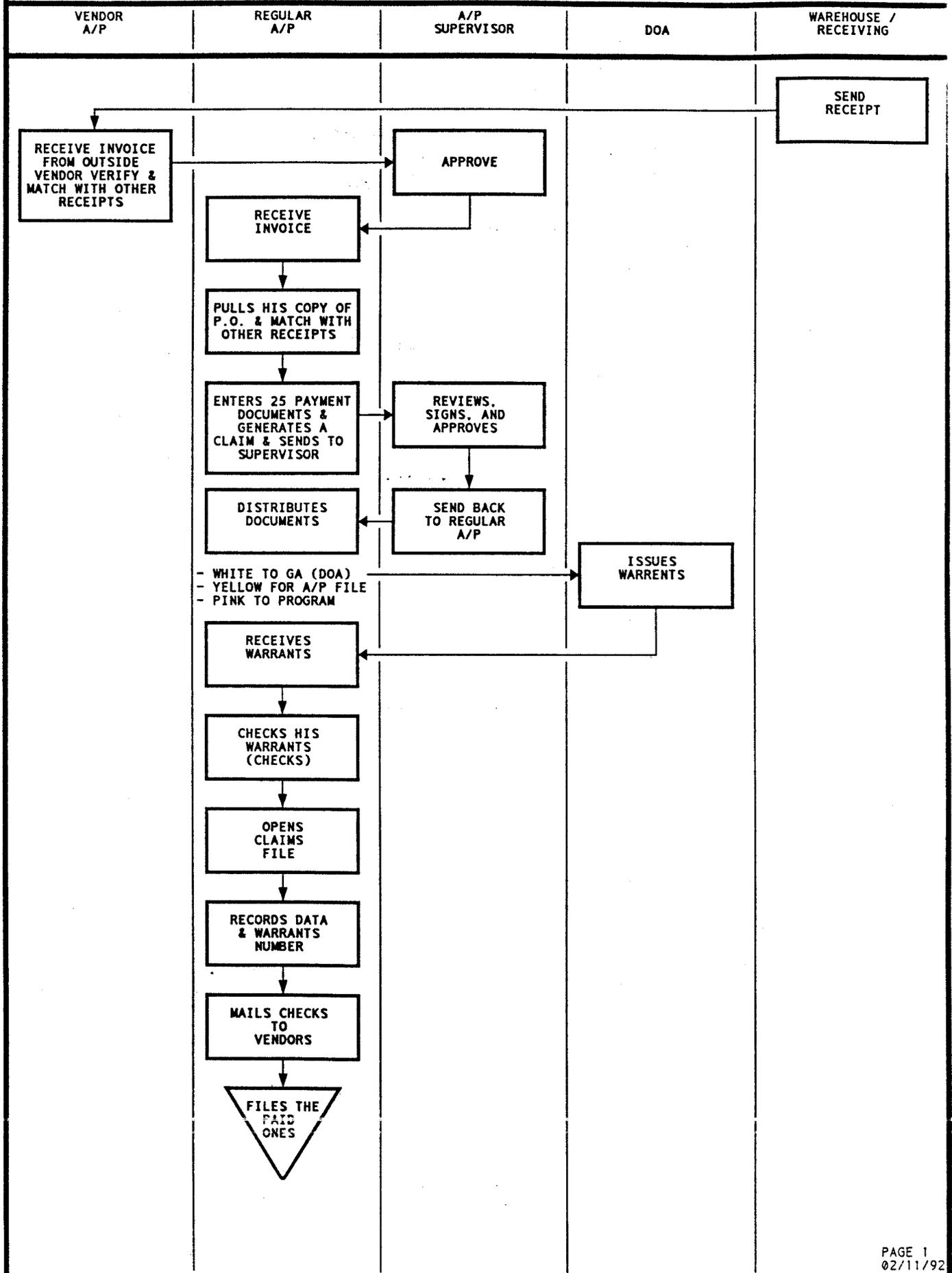
Estimated Implementation time line for 60 days requiring:

- Revision of policies and procedures

- Update of organization
- Processing of appropriate personnel actions.

PAYMENT PROCESS - A/P (CURRENT)

EXHIBIT 79



REORGANIZE INFORMATION RESOURCES MANAGEMENT

Current Situation

The Information Resources Management Section (IRMS), or Automation Section, of the Office of Administration is presently managed by an EDP Manager II, with five separate Units identified on the organization chart. These Units are:

- Information Center, managed by an EDP Programmer Analyst III, with four current or proposed additional staff; providing general oversight and management of the PC portion of the department's automation activities
- Business Systems, managed by an EDP Programmer Analyst III, with four current or proposed additional staff; providing program development and operation for the Business and Finance Section
- Scientific Systems, managed by an EDP Systems Project Leader, with two current or proposed additional staff; providing program creation and modification for Groundwater Hydrology and other specific programs
- Operations and R & D, managed by an EDP Technical Support Specialist I (this Unit Manager position is presently vacant, with the incumbent special detailed [S/D] to Section Manager), with three current or proposed additional staff; the two existing staff provide direct support service to the program personnel
- Data Base, managed by an EDP Data Base Specialist II, and the sole staff in that Unit.

There additionally is shown a dotted line relationship to the "LAN Administrators" scattered throughout the Department, with those positions being located in the various program areas. Those positions are filled by persons of several different personnel titles, only a few of whom are actual EDP persons.

Impact

The existence of the various "LAN Administrators" throughout the program units of the Department, as noted in previous recommendations, results in time not being spent by those staff on the areas of primary responsibility of the unit to which they are assigned. Example: In the Office of Waste Products, Pre-Remedial and Remedial Section, an Environmental Program Specialist is assigned nearly full time to EDP-related functions, while his job description and organization chart position call for him to be doing pre-remedial investigations and reporting. The work load which should be carried by that EPS thus is having to be borne by other staff in the Unit.

The existence of the EDP Committee, composed of the designated LAN Administrators, some alternates, some automation unit staff and some executive staff, also creates problems within the Department. At present, this Committee involves a significant amount of time with twice-monthly half day meetings, plus other time investment for individual communication. The value of the meetings, from interviewees information, is highly questionable. Some characterizations of these meetings are that essentially they simply are "gripe sessions," with little productivity from them.

With automation staff now segmented into task-specific Units, there is limited ability of the Section Manager to shift tasks and responsibilities where available staff time might exist (e.g., one staff feels he is responsible solely to the financial services people, and takes task assignments directly from them, rather than through the Section Manager's assignments).

The duplication of efforts between the automation staff and the EDP Committee, the minimally productive time invested in the EDP Committee meetings, in addition to the unproductive efforts expended by automation staff in maintenance contracting and equipment purchasing (addressed in previous recommendations), demonstrates a significant amount of manpower available to be redirected, subject to some reorganization and concentrating of authority and responsibility.

Recommendations

It is the recommendation of the Project Team that the following reorganization occur, together with the implementation of the previous EDP-related recommendations:

- Eliminate the EDP Committee as a formal decision (or recommendation) making body, retaining the contact persons as needed to serve as liaison to the automation section staff
- Reorganize the Automation Section into two working units, identified as "Technical Support" and "Operations Support" Units
- Reclassify the present Information Center Unit Manager (EDP Program Analyst III, Grade 20) to an EDP Systems Project Manager, Grade 22, assigned as "Technical Support Unit Manager"
- Create a Secretary position, Grade 11 for this Section
- Change one proposed EDP Programmer Analyst II, Grade 22 to an EDP Programmer Analyst I, Grade 20
- Eliminate the following listed positions which now (January 1, 1992) are shown on the organization chart (see Exhibit 81, Office of Administration, Proposed Organizational Chart)
 - EDP Programmer Analyst III, Grade 20
 - EDP Management Information Specialist, Grade 19
 - Administrative Assistant I, Grade 13
 - State Service Intern (c. \$27,700).

Benefits

The following benefits are to be derived from these changes:

- Cost savings of \$55,546 (\$44,136, \$17,700 & \$20,773) by elimination of a PA III, Intern, and AA I
- Cost avoidance of \$52,267 (\$39,559 & \$12,708) by elimination of a proposed Info Specialist, and down grading a proposed PA II to a PA I

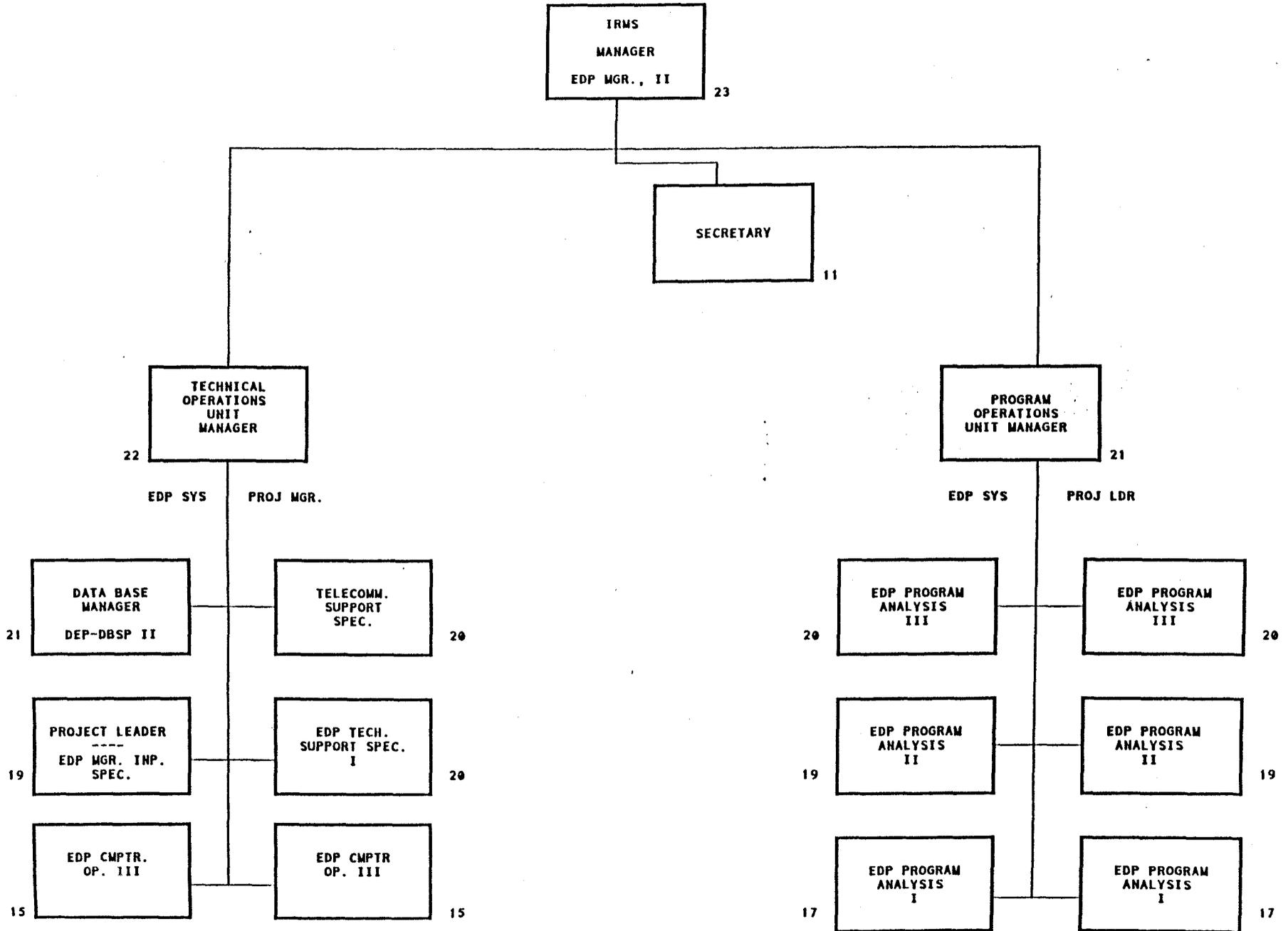
- Off set by adding a Secretary (pay grade 11) for \$18,101 and upgrading a PA III to a Systems Project Manager (pay grade 20 to a 22) at \$8,862 difference, or a total added of \$26,963
- Total savings and avoidance, between the current organization chart and the proposed structure (see Exhibit 80, Information Resources Management Section, Proposed Organizational Chart), amounts to \$107,913 annually (State funds).

Implementation

Implementation of this recommendation involves an administrative decision to reorganize as suggested, plus submitting one position for reclassification.

- Time frame: Approximately 60 days.

DEC - 284



UTILIZATION OF HUMAN RESOURCE PERSONNEL

Current Situation

The Human Resources Section under the Office of Administration has currently a total of 11 budgeted positions. Four of those positions are vacant (see Exhibit 73, Contracting, General Services and Human Resources Sections, Current Organizational Chart). General functions performed by the Human Resources Section are as follows:

- Occupational safety for the department
- Training both technical and administrative personnel
- Serving as the Department EEO and Affirmative Action representative
- Interpret and provide guidance relating to employee benefits, EPA and the Human Resources Management System (HRMS)
- Processing staffing actions and recruitment efforts.

Presently there is no significant backlog of work to be performed.

Impact

The number of FTEs in an organization is not a gauge of the staffing requirement for the occupational safety function, nor should the safety workload vary in proportion to the number of FTEs. A significant dispersion of activities and the number and types of facilities will have a bearing. The future of the safety workload should tend to be somewhat less, especially if the DEQ continues to move toward centralization of personnel and facilities.

The training programs will expand somewhat if the recommendations contained in this report are approved. It is our opinion that the training effort will require an additional FTE. No measurement was available to quantify the number of annual man-hours required, therefore the addition of another training officer is based on our best estimate.

The personnel support functions are currently authorized six budgeted positions. Two of these positions were vacant at the start of the study in October 1991 but one was filled at the beginning of 1992.

The Section Manager's office is authorized three FTEs; the Manager, Administrative Secretary and a State Service Intern. None of these positions were filled at the time of the study. The Manager position is filled by a Unit Supervisor acting for the Section Manager.

Recommendations

We recommend achieving a greater efficiency and management effectiveness through the following steps:

- Increase the Training Unit by one Training Officer
- Reduce the manager's staff by one FTE, the State Service Intern (\$17,700)
- Reduce the personnel support staff by two Clerk Typists (Grade 9 & 10)
- Expand the training program with emphasis on policy and procedures and their application in the work center, and management training for managers and supervisors.

Benefits

Implementation of the above recommendations will result in the following:

- A trained staff of managers and supervisors to handle the complex workload within the DEQ
- A future savings as the result of better qualified and trained operating personnel
- Reduction of time taken for on-the-job training
- A cost savings of two Secretaries, including ERE, of \$36,202 ($\$18,101 \times 2 = \$36,202$)

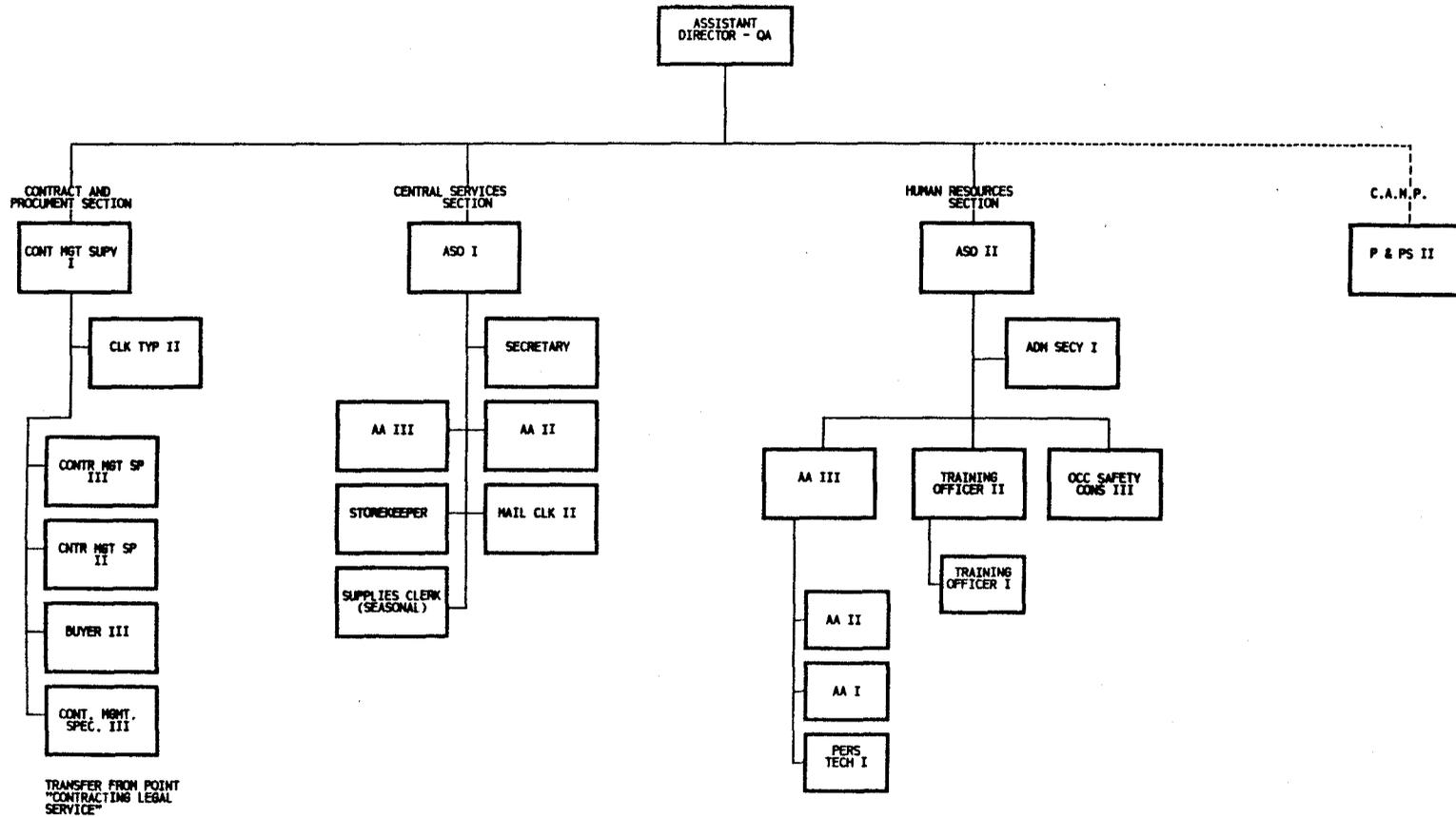
- A cost avoidance of a State Service Intern of \$17,700 including ERE
- An additional cost of \$39,539 including ERE for a Training Officer I
- A total savings of \$14,363 (State funds)
- Quantifiable savings resulting from an effective training program cannot be calculated at this time.

Implementation

- Process personnel action papers
- Revise organization, policies and procedures as appropriate
- Estimated time frame is 60 days.

DEPARTMENT OF ADMINISTRATION - HUMAN RESOURCE & CONTRACT PROCUREMENT
 PROPOSED

EXHIBIT 81



BUDGET WORKLOAD

Current Situation

Until recently very few written procedures existed for the budget preparation and control process. However, a concerted effort is now underway to document such procedures.

Budget forms are distributed to the Assistant Directors of each Division. Budget data is submitted on forms provided, and reviewed from Section level upward to the Management, Budget and Audit Section, Office of Administration. Managers are interviewed regarding their budget submission and deficiencies noted, if any.

After conferring with the managers, the Budget staff prepares the formal budget request and, after approval of the Director, the management staff is briefed on the final product. The budget is then signed, entered in the computer and a copy provided to the program managers.

Work in the Budget Unit reaches a peak twice each year, once for the submissions to the Federal Government (EPA) regarding grants, and once for the State budget cycle. Grant applications are prepared in the Budget Unit rather than at the program level. Most of the information is provided from the Program and Planning Unit with some information that is in the data base on spread sheets. Program personnel provide data such as outside services, travel and anticipated equipment purchases.

Impact

The Budget Unit indicated that all organization levels down to and including Section level participated in the preparation of the budget. However, interviews with Section Managers indicated that most were unaware of the contents of the department budget, including their own. The DEQ budget book is prepared in accordance with the Governor's Office of Strategic Planning and Budget (OSPB). There is no linkage to the DEQ Budget Plan and Work Plan. It is difficult to cross reference from the OSPB budget to the Budget and Work Plans. This linkage should be made in order to be able to effectively manage DEQ resources.

The budgeting function is not solely performed by the Budget Unit. Much of the preliminary budget work is done by personnel within the DEQ Offices of Water, Air and Waste. Their data is consolidated at the Budget Unit level.

Preparing grant applications in DEQ is normally the responsibility of the work center benefitting from the grant or management of the grant effort. The program (work center) area is more familiar with the objective of a grant than the Budget Office, including the funding requirements.

Workload within the Budget Unit does appear to keep all assigned personnel gainfully employed. Two FTEs are performing the basic budgeting workload while the rest are engaged in special projects and assignments, reviewing task assignment, spread sheet changes to the Work Plan, and various automation projects.

A comparison was made with other Budget Offices in state service responsible for a similar monetary value, number of grants of all types and staffing. Based on this comparison the DEQ Budget Unit is over-staffed by at least two positions.

Recommendations

We recommend a greater efficiency and management effectiveness through the following steps:

- Assign the responsibility for preparing grant applications to the program of primary interest or benefit
- Revise the Budget Plan and Work Plan to ensure compatibility and linkage with the Budget Books
- Reduce the budgeted positions from six to four by eliminating the AAI and Admin. Budget Intern
- Reorganize the current Management, Budget and Audit Section to reflect only the supervisory position and four subordinates (see Exhibit 82, Management and Budget Section, Proposed Organizational Chart).

Benefits

Implementation of the above recommendations will result in the following:

- Grant applications will be completed by program personnel most familiar with requirements of the project and having the most technical expertise
- The Budget Book, Budget Plan and Work Plan will be linked together, easing the effort of cross referencing, and a possible elimination of the Budget Plan
- A savings in salary and ERE of \$40,880 per year ($\$16,618 \times 2 = \$33,236 \times 1.23 = \$40,880$) State funds.

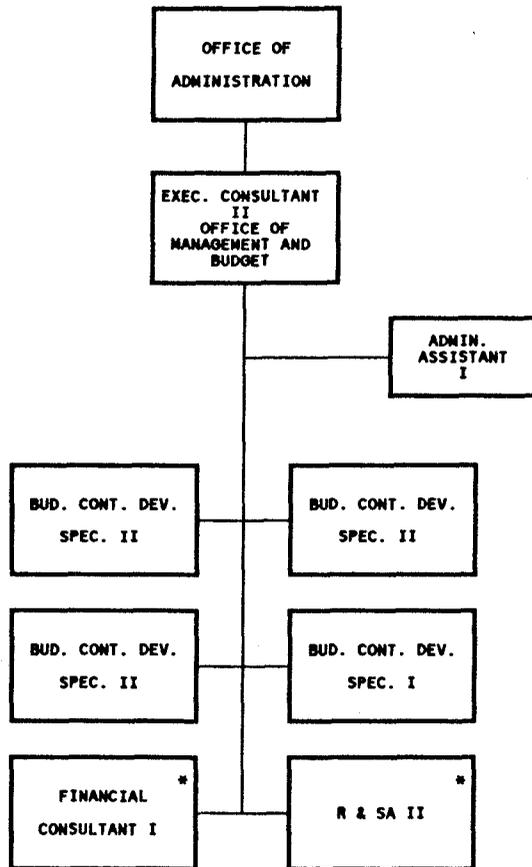
Implementation

- Revise organization structure and manual
- Revise policies and procedures documents
- Process personnel action documents
- Estimated time frame is 60 days.

PROPOSED OFFICE OF MANAGEMENT AND BUDGET

EXHIBIT 82

DEQ - 272



NOTE: TWO POSITIONS (*) MOVED FROM THE FACILITY REPORTING UNIT TO OMB.

DEPARTMENT of ENVIRONMENTAL QUALITY

RULES DRAFTING RECOMMENDATIONS

RULES DRAFTING

Current Situation

The Rules Development Section has three functions. These functions are to develop rule packages, assist in legal compliance enforcement issues, and to develop agency policies. The overall mission of the Section is "to keep regulatory development going."

The Section is currently authorized 15 FTEs, including the Section Manager. Presently one position is vacant. Four of the five ASO II and both of the P & PS II positions are directly involved in the rules drafting process (see Exhibit 83, Office of the Director, Current Organizational Chart).

Exhibit 84, List of Certified Rules, indicates that 26 rule packages have been developed and adopted since 1987. However, there are still 46 more packages to be developed as of this writing.

The present DEQ plan is to get approximately seven packages drafted and adopted this coming year. DEQ employs two distinct processes, one informal and voluntary (a DEQ activity), and the other being the formal, legal state process used by all agencies in state government (see Exhibit 85, Rules Development – Informal and Formal Process, Flow Chart). The formal, legal process is initiated when the package is submitted to the Governor's Office of Strategic Planning and Budget (OSPB) as shown in the flow chart.

Program staff, in the informal process, do much of the leg work involving the research required to draft a rule. Sometimes there is no existing precedent such as federal regulation.

Since approximately seven rule packages will be processed next year, prioritization of the 46 rule packages (RP) restricts the number of rough draft RPs which can be received and finished for the legal process. It requires an average of approximately 40 Rules Section man-hours to develop an RP submitted by program staff and develop it to the point where it can be presented for public (Informal) review.

Approximately 75% of the rough draft proposals are submitted to the public in this informal review process prior to drafting both the legal draft (which will go before the Governor's Regulatory Review Council (GRRC)) and the Economic Impact Statement (EIS). Approximately five public meetings are held each year. Each public meeting requires approximately 40 man-hours of effort, including the one day meeting itself.

Once the public meeting has been held and the results of the meeting have been tabulated and reviewed internally by the A.G.s, it requires an average of approximately 160 man-hours to draft and review the RP, and 160 man-hours to complete an average E.I.S.

Drafting RPs generally require more time when:

- There are no state or federal regulation precedents, or if the legislature has passed a very broad and non-definitive statute, and
- When the GRRRC rejects an RP as a result of the formal public comments. Redrafting and resubmitting the rule through another lengthy legal process is then required. The informal process of voluntary public comment is designed to prevent these rejections, and in DEQ's case it does that 90% of the time.

Impact

Comparing DEQ's manpower (see Exhibit 83, Office of the Director, Current Organizational Chart) with staffing used by other agencies to draft RPs for the formal, legal process (even for agencies which are faced with frequent updates of RPs), DEQ's staffing appears to be high. For example, at DEQ's present full time staff and Rules completion pace, it will require another seven years to complete the currently identified Rules at a cost of \$1,911,000 (see Exhibit 83, Office of the Director, Current Organizational Chart). By contrast, most other agencies do not employ a full time RP writer.

An unquantifiable change involves modifying the legal process (see Exhibit 85, Rules Development - Informal and Formal Process, Flow Chart) whereby the Attorney General (A.G.) may reject the RP after formal public comment because it differs from the intent of the RP as published in the "Notice of Proposed Adoption."

Legislation dealing with the environment is often too broad and non-specific as enacted. When statutes are written in more specific language, there is less requirement for rule-making. Enforcement can refer to either the statute or a rule, but if referring to a statute, that statute must be sufficiently specific. DEQ has a legislative liaison in the Office of Public Affairs who should be used to effect improved legislation by focusing on this opportunity for obtaining specificity in legislation.

Recommendations

The following is recommended:

- Eliminate the vacant A.S.O. II position and replace it with an Economist (a wash-out)
- Eliminate the Secretary and transfer IPS II to the Secretary position
- Require a fully detailed rough draft from program staff (more than just a concept) for the rules drafting staff
- Schedule the informal public meetings to handle more than one RP, or related subjects thereby reducing the number held each year
- Revise the GRRC system, with taxpayer cost in mind
 - when a RP results in some change from the published proposed format, allow it to be changed and sent on through the legal process
 - require A.G. certification to be done when the RP is prepared and reviewed by the A.G., rather than after the Director adopts the rule, since at that time the A.G. can still reject the RP, further reducing elapsed time in the GRRC process
- DEQ should, through its legislative liaison and the rule drafting staff and in concert with house and senate environment committees, focus on a cost saving approach to produce more specific legislation which will result in requirement for fewer rules.

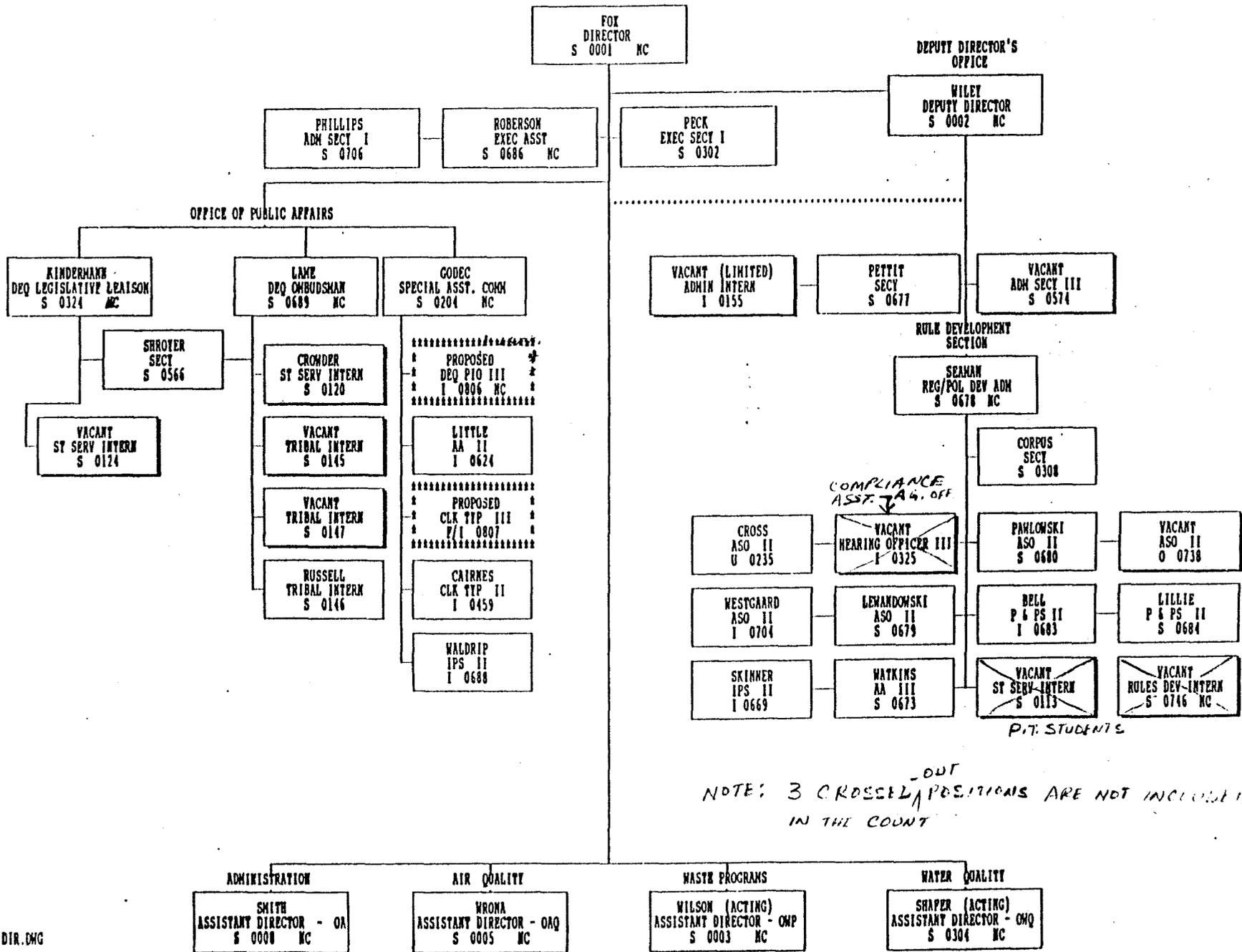
Benefits

- Elimination of a Secretary will result in approximately \$17,800 savings (State funds)
- Improving the informal and formal processes will result in gained efficiency in completing the rules adoption requirements prior to the seven years anticipated under the present budgeted position plan.

Implementations

- Prepare necessary personnel documents to eliminate the position
- Revise the GRRC System per recommendations
- Time frame: Approximately 12 months.

DEQ - 277

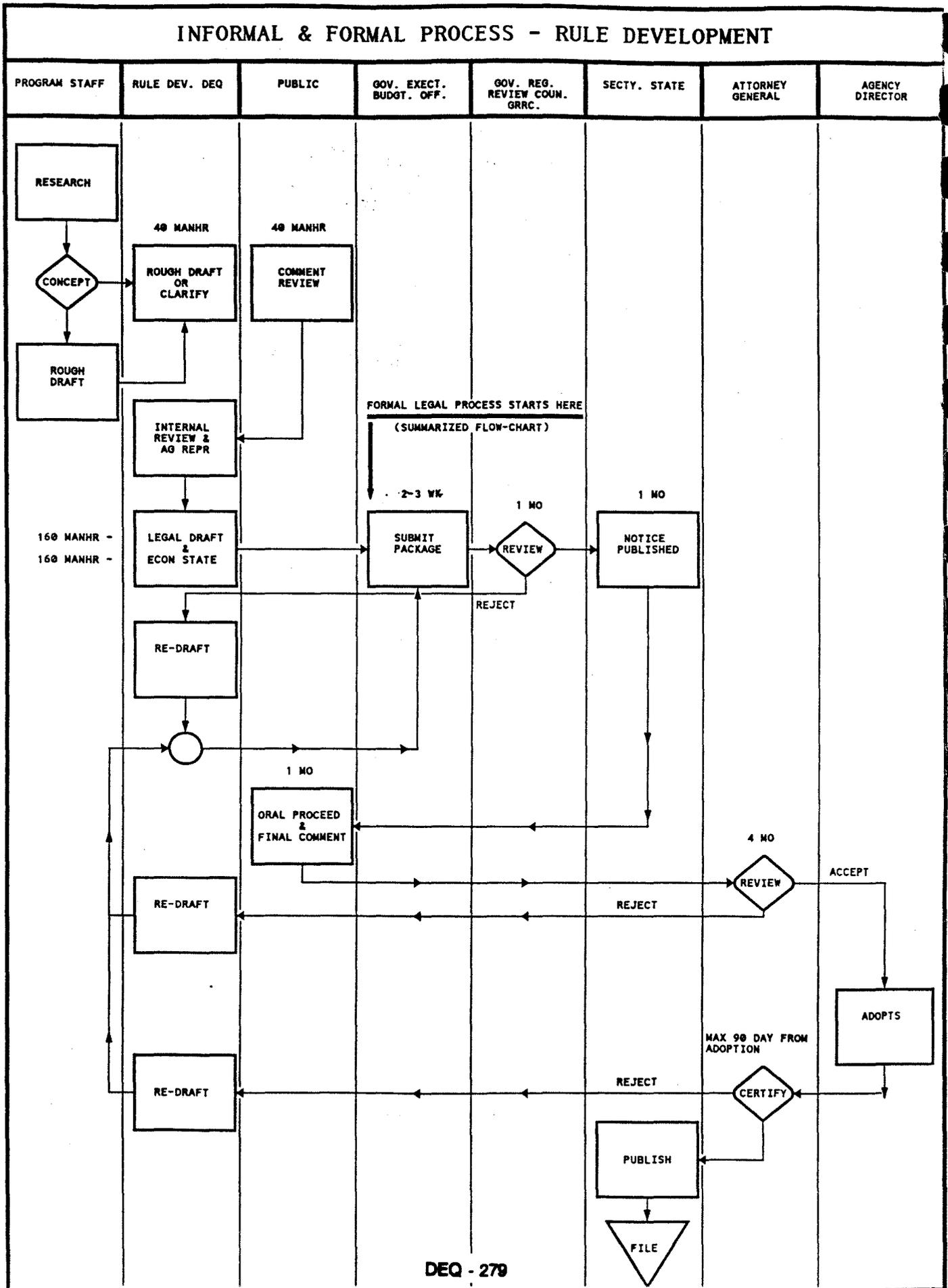


NOTE: 3 CROSSED POSITIONS ARE NOT INCLUDED IN THE COUNT

Certified Rules [As of January 31, 1992]

Aquifer Boundary [effective date 10/22/87]
Pesticide Dispute Resolution [effective date 8/27/87]
Operator Certification [effective date 10/23/87]
Hazardous Waste 86 [certification date 5/26/87]
WQARF Administration [effective date 12/18/87]
NSPS/NESHAPS 86 [effective date 2/26/88]
Pesticide Numeric Values [effective date 5/10/88]
Public Participation [effective date 7/7/88]
Vehicle Emission [effective date 8/1/88]
Operator Certification Fees [effective date 11/30/88]
Rule Transfer [certification date 11/30/88]
Water Supply Systems [effective date 6/30/89]
Aquifer Boundary Public Participation [effective date 6/29/89]
Aquifer Protection Permit [effective date 9/27/89]
Repeal of WQCC Rules [certification date 10/10/89]
Hazardous Waste 87 [effective date 10/11/89]
Discharge to Wells [effective date 10/19/89]
Aquifer Water Quality Standards [effective date 1/4/90]
Subdivision Violations [effective date 4/2/90]
Vehicle Emission Loaded Test [effective date 9/19/90]
Phase I Air Quality [effective date 9/26/90]
APP Agricultural General Permit [effective date 1/4/91]
State Revolving Fund [effective date 5/31/91]
Water Supply Systems II [effective date 8/8/91]
Hazardous Waste 90 [effective date 8/14/91]
UST Excise Tax [effective date 12/26/91]

INFORMAL & FORMAL PROCESS - RULE DEVELOPMENT



MANHOURS REQUIRED IN INFORMAL PROCESS
FOR RULE PACKAGE ADOPTION PER R.P.

- 1) Development of concept or rough draft for Informal Public review 40 hours
- 2) Development of meeting place, advertise, travel and meeting time 40 hours
- 3) Legal Draft RP 160 hours average Economic Impact Statement (EIS) 160 hours average
- 4) TOTAL HOURS REQUIRED: 400 MANHOURS

DEPARTMENT of ENVIRONMENTAL QUALITY

GENERAL RECOMMENDATIONS

DEQ LABORATORY SERVICES

Current Situation

Although DEQ uses the services of several labs to process their samples, the vast majority of their sample volume is processed by the Department of Health Services (DHS) lab. This volume amounts to nearly \$1,000,000 annually.

Currently DEQ pays for the services they receive from DHS in two different ways:

- Memorandum of Understanding (M.O.U.)
- Contract.

The M.O.U. originated approximately six years ago when DEQ emerged as a separate department from DHS. It was agreed at that time that DEQ should have a share of the DHS lab budget. Each year DEQ and DHS meet to work out the M.O.U. amount. Last year the M.O.U. amount agreed upon was approximately \$428,000 in lab services.

Per our interviews, in order to get the total value of the M.O.U. in services, DEQ must keep the sample volume up, but it cannot exceed the volume that DHS has the ability to process. The time period in which DEQ is most likely to deliver samples to DHS is the same time period in which DHS has the most volume to process, since they also do their own work, as well as work for other agencies. At the present time DEQ programs frequently have to schedule their field monitoring and sample gathering work around the DHS lab's ability to process the samples.

Impact

Entire DEQ programs scheduling their activities around another agency's agenda, rather than around internal program needs, is not reasonable when, according to our information, the costs of other laboratory services are either equal to or less than those of DHS.

Last year, as in almost every previous year, DEQ received approximately \$100,000 less in services than the amount actually agreed upon. In the first quarter (alone) of this year, the negative difference was \$50,000.

Recommendations

We recommend the following:

- DEQ request all of their portion of laboratory funds be allocated directly from the legislature, for them to manage along with their other budgeted funds
- DEQ can then treat their laboratory costs as a management variable cost, and look for alternatives which may result in better service at equal or lower cost.

Benefits

- \$100,000 additional in DEQ's laboratory budget
- The opportunity to improve effectiveness of work activity scheduling
- The opportunity to improve services at equal or lower cost.

Implementation

- Propose to the legislature to appropriate DEQ's portion of the DHS Laboratory budget to DEQ
- Time frame approximately 12 months.

POLICIES, PROCEDURES, TRAINING, MANAGEMENT and PERSONNEL

Current Situation

Interviews with all levels of management revealed that there is a lack of department policies, procedures and a formal or informal training program, management controls, plus there are numerous personnel problems which adversely effect efficiency and effectiveness of DEQ operations..

The Department of Environmental Quality (DEQ) is a relatively new agency, having been separated from the Department of Health Services (DHS) approximately six years ago. Although some of the basic activities performed by DEQ remain the same as when the DEQ was a part of DHS, some new programs have been added and emphasis and priorities were altered in keeping with both Federal and State requirements.

Impact

Policies have been slow in developing resulting in some confusion at the worker level. Since policies are the governing direction in organizations they set the initial premise on which procedures are developed. Emphasis should be placed on establishing a DEQ policy manual where all such documents can be placed and made available to the entire staff. This manual may then form the guidelines from which operating procedures can be developed.

Operating procedures define the activities or work element to be performed and specifies the step-by-step process for completing the activity within the work center. During our interview phase of this study, it was discovered that only four Units within the department had such written procedures. New employees were given on-the-job training by their supervisor using verbal instructions. In some cases, supervisors were so newly assigned on the job that the employees were on their own to learn processes as best they could. The rapid turnover and hiring pace for the expanding organization created additional problems in having a well trained and stable work force.

The situation outlined above is also the reason that check lists for field work and office reviews have not been fully implemented. Check lists were evident in only two of the Units. These lists are an aid to personnel to ensure that a standardized process is followed which covers all necessary points of inspection and review.

The DEQ training program is in its embryonic stage and is staffed with one FTE. Training requirements are in the process of being established. Office and Section Managers need to work more closely with the Training Officer in order to determine the specific needs of the staff and operational organizations. Once the needs have been identified and prioritized, the Training Officer can then prepare specific programs to meet those needs. A high priority should be assigned this effort because of the lost productivity experienced under the present over-the-shoulder method of employee training.

Considering the lost time on the part of both the Supervisor and employee under the present situation, substantial savings will accrue with an effective program. We were unable to quantify savings in this area, however, when considering that during a six month on-the-job training period the employee will be only 50% productive and will require at least 10% of the supervisors' time, and an average salary with fringe benefits of \$39,559 potential savings is approximately \$9,890 per employee, plus approximately \$2,000 of supervisory time. Total costs of OJT cannot be quantified, since the total number trained was unknown.

We encountered very few instances where Section and Unit managers knew the make-up and amount of their budgets. The budget process began at the lower levels where managers would estimate their basic requirements, principally with respect to staffing and travel. As the process flowed upward, contact with the estimator was lost in the consolidation process at Section, Office and Director levels. Upon completion of the budget process the information as to final budgetary amounts did not flow back down the management chain. Status reporting is done at the lower levels, however, there is nothing to evaluate progress against. No trends are calculated against which to measure effectiveness. DEQ has recently instituted a practice to involve the managers to a greater extent and to provide a coordination and management reporting process.

One of the major impediments to efficient and effective operations is the lack of a stable work force and the constraints placed on highly qualified technical employees. Under the present state personnel system it is not possible to pay these individuals a competitive salary without assigning them to a supervisory or management position. There is no recognition of the value of persons within a high level of technical expertise to the Department's mission. They are forced to accept management positions in order to advance in pay. The result is a technical person in an administrative position with which they are not happy.

In this scenario we have a poor supervisor in place and have lost an outstanding technical person. Some engineering types want to change careers, but they appear to be in the minority. Industry has recognized their dilemma and has established a "dual career path" concept. This has solved the problems

mentioned above by providing upward mobility for not only managers but technical personnel as well. The technical person is paid according to his/her value in the technical discipline, as is the manager according to his/her management expertise.

Recommendations

We recommend achieving a greater efficiency and management effectiveness through the following steps:

- Complete a Policy Manual at the earliest possible date
- Prepare and publish standard operating procedures as soon as possible
- Establish work standards, or reasonable expectations, wherever possible
- Prepare training materials for newly assigned personnel for use in the on-the-job training period
- Prepare or obtain course materials for formal training sessions in the various specialties
- Establish or provide for management training for both mid and upper level managers
- Establish a budget review process to include all levels of management from Unit level upward
- Provide the Section and Unit Managers a copy of their budgets as approved
- Provide a measurement control process whereby all submissions and changes to budgets are thoroughly coordinated with all managers effected
- In concert with the Department of Administration, prepare the necessary position descriptions reflecting a dual career path for technical personnel within DEQ.

NOTE: This subject is also being addressed by a special study group of Project SLIM, who will be provided a copy of these recommendations.

Benefits

Implementation of the above recommendations will result in the following:

- All department personnel will have a clear understanding of the goals, objectives and mission of the organization
- Personnel will have available the detailed procedures followed in performing their jobs and will provide a ready reference during their training period
- On-the-job training time will be reduced making the employee more productive at an earlier date
- Employees will be able to cross train into related specialties in minimum time, having course materials ready for reference
- A broader based staff allowing for increased utilization of personnel, and the capability for special assignments as the need arise
- Managers trained in the principles and functions of management, adding to their value in addition to their technical expertise
- DEQ managers will have knowledge of their budgetary resources with which to do an effective job of managing their organizations
- Technical personnel will have the option to follow a technical career path or management career path, and be fairly compensated in either one

- Reduction of turnover in the technical positions, thereby increasing productivity.

Implementation

The estimated time line for implementation of these recommendations is 12 months to:

- Prepare current policies and procedures manuals and publish
- Prepare training manuals
- Prepare budget guidance and preparation documents
- Develop position Description Questionnaires (PDQ).

PROVIDING DEQ WITH STAFF ATTORNEYS

Current Situation

Considerable amounts of legal work are routinely carried on by the Department of Environmental Quality. All of their enforcement actions are subject to legal review of some degree. Any actions being prepared for the courts (injunctions, civil penalties assessments, etc.) required review by staff of the state Attorney General.

We are advised that approximately twenty-five percent (25%) of the Drinking Water compliance actions result in an actual compliance order issuance, signed by the agency Director, and at that time requiring involvement of the Attorney General's staff.

Other areas of DEQ similarly refer their enforcement actions for legal review at that level. For these services there are a designated number of Assistant Attorneys General designated to handle DEQ activities. In addition, outside legal counsel is occasionally obtained.

Impact

The department pays \$372,000 per year for the dedicated time of these Assistant Attorneys General. The various Divisions have lists of Assistant Attorneys General which they use for their type-specific issues (in one area we were shown a list of nine identified attorneys, but were told those assignments are frequently changed).

Although these attorneys are supposedly designated specifically to DEQ needs and issues, we are told that, in reality:

- There may be as little as one-half to three-quarters of a day in which that service is available
- The attorney assignments are constantly changing, with the need for DEQ to "train" the newly assigned attorneys regarding the nuances of environmental issues with which they will be working, resulting in significant losses of time
- The Attorney General is responsible for assigning priorities for these designated attorneys, not the Department of Environmental Quality.

Because of these dual-supervisory structures, time is lost in waiting for the attorneys response to issues which have been submitted, waiting for them to become familiar with the particular issues involved in the different types of environmental concerns, and in the added needs for cover letters, memos and mail transmission time and costs for the packages requiring review.

Recommendations

Although we did not obtain data showing the total cost of all services now provided by the office of the Attorney General, as well as the private counsel costs being incurred, those specifically identified costs for A.G. services are significant.

We therefore recommend the following:

- The Department of Environmental Quality be authorized to employ two full time Attorney IIIs, at a (mid-range) computed salary package of \$52,150 each, a total of \$104,300
- That DEQ be relieved of the statutory required to secure legal services from the Attorney General
- That employment of these attorneys be gauged to obtain persons with specific skills in the areas of environmental law
- That the four Legal Assistants being transferred in other recommendations in this Report be assigned to these Attorneys in an Office of Legal Counsel
- Reserve approximately \$120,000 appropriated funds to purchase legal counsel from the Attorney General for litigation cases.

Benefits

The benefits to be secured through implementation of this recommendation include:

- Enhancement of the general counsel services to DEQ, responsive to the Director's priorities

- **Faster and more efficient legal counsel service to DEQ**
- **Day-to-day legal advice being a staff function within DEQ**
- **Savings of \$147,700 (State funds), by hiring two pay grade 22 Attorney IIIs at a combined salary package of \$104,300, and eliminating the \$372,000 payment to the A.G.**

Implementation

Implementation of this recommendation will require:

- **Amending A.R.S. 49-103.B, which requires D.E.Q. to utilize the services of the state Attorney General**
- **Authorizing DEQ to utilize those presently designated funds now going to the A.G. to hire the recommended attorneys**
- **Retain the terminology of A.R.S. 45-109.G by which the Department is permitted also to hire legal counsel, as is allowed numerous other state agencies**
- **Time frame: Approximately 6 months.**

DEPARTMENT ORGANIZATION STRUCTURE, DEQ

Current Situation

Except for the Office of Administration, the present organization structure for DEQ is designed to reflect topical activities rather than function, i.e., water quality, air quality and waste. The result of this type of arrangement is a parallel devolution of like functions, in each of the topical areas such as inspections, compliance, permits, assessment, monitoring, evaluations, etc.

The broad field of environmental engineering prepares the specialist for duty in all three topics mentioned above. In the operating environment as presently organized, the exercise of the specialties is restricted to one topic rather than the broader spectrum for which they were trained. For those entering the environmental field without academic training as engineers, the specialist learns only one area of expertise and is limited to operating within the confines of that topical and functional area. In these cases a person working in the water area has no opportunity to broaden their knowledge by working in air quality even though the technological bridge between the two is not that difficult to cross. General procedures and processes are similar in all three topics.

Impact

The present topical organization results in the following:

- A limitation is placed on the environmental specialist restricting this person to dealing with only one function in one area of environmental activities, such as permits regarding air quality
- The utilization of the persons in the situation as above places restraints on the application of those persons' expertise, confining them to only a small area of environmental problems rather than global issues
- Upward mobility of individuals is restricted in that the broadening of the technological experience base is not possible, thus the person is unprepared to meet a higher level of responsibility

- There is a dilution of responsibilities in the current situation that results in treating only one aspect of one topic, rather than transcending all three topics
- The present organization results in confusion among the permit applicants and in many cases, exasperation. As an example, a manufacturer needing a permit to construct and operate his facility may well have to deal with three different offices in DEQ, and in some cases many more
- In addition, the applicant may also have to deal with several other state agencies, such as the Corporation Commission, Revenue Department, Real Estate Department, etc.

In order to be responsive to the public we should, whenever possible, provide one central point of contact within an agency, to handle all the needs of the applicant. If it is permits, all such documents required by DEQ should be available in one place and from one staff group. The same holds true for compliance, inspections, monitoring, and so forth.

A functionally organized agency can best respond to the public needs, regardless of the topic covered, i.e., water, air or waste.

Recommendations

Due to the time constraints placed on the Project SLIM review of DEQ, we were unable to adequately address this issue. However, we feel that an in-depth review should be undertaken, to assess the feasibility of an entire agency restructuring along functional lines. This could very well be done as a part, or at the same time, as the implementation phase of the SLIM effort.

Benefits

Benefits to be acquired from this Recommendation include:

- Broadening of employee job experience, which will have the effect of an employee being well versed in the technology associated with environmental issues
- Employee utilization will be enhanced since staff may work on all topical issues in their functional areas

- A broader based employee is better equipped to ascend the career ladder, being better schooled in the processes relating to the total effort or mission of the agency (a concern of the present Director was promotability and career ladder opportunities for his staff)
- Provision of a central point of contact for the public, regardless of the type of service, license or permit required, saving a considerable amount of time and relieving frustrations and poor public relations.

Implementation

Implementation of this Recommendation will require a Team being granted far more time to perform an in-depth evaluation of the current staff, to reconfigure it against the proposed new structure of a Division of Permits, a Division of Compliance, and a Division of Support Activities (or some similar terminologies).

Evaluating the duplicated services which would still remain after such a reorganization were accomplished needs careful consideration, without being rushed against an established time line, although the task -- given a Team which is properly staffed and motivated -- should be capable of accomplishment within six months to one year.

WORK STANDARDS / WORK MEASUREMENTS

Current Situation

During this study there was no evidence of any kind of work or job standards being used to control the flow, timing and staffing of work assignments. All staffing requirements have been based on the best estimates of management personnel using past experience as guidelines. To date there has been no work measurement program from which standards can be developed using accepted industrial engineering processes and practices.

Impact

The lack of work and staffing standards deprives the manager of any kind of gauge with which to:

- Determine the efficiency of a unit
- Determine staffing requirements scientifically
- Establish a basis on which future manpower may be calculated, and
- Determine manpower budget requirements
- Measure the performance of the employee.

Most of the activities and tasks performed in DEQ lend themselves to being measured. The issuance of permits, inspections, ensuring compliance, testing and monitoring in all three Offices (Water, Waste and Air) are measurable. The paper handling processes in the Comptroller's Office, being repetitive in nature, are easily measured. There are a number of measurement techniques utilized successfully in similar operations throughout government and industry organizations. DEQ activities are not beyond the scope of measurement or outside the axiom that "one cannot manage that which cannot be measured."

Past experience with work measurement studies has shown that there is a 15% improvement in operational effectiveness in those organizations where work measurement techniques have been applied and work standards established. Aside from managerial and secretarial positions, we believe that about 170

positions can be subjected to work measurement standards. The balance of the positions are excluded, initially, due to the technical nature of the work.

Work standards may be set for key tasks or activities down to the task element level for production standards. In the instance of DEQ a standard for key tasks, such as inspections completed or plans reviewed and approved, should suffice. The same level should be appropriate for paper handling activities. It is essential under good management practices to institute some form of work measurement program.

Recommendations

We recommend achieving a greater efficiency and management effectiveness through the following steps:

- Upon completion of this Phase I SLIM effort, and the recommendations being implemented, a work measurement program be established
- Major work tasks be identified by measurements which realistically gauges performance
- Establish work standards on reasonable expectations.

Benefits

Implementation of the above recommendations will result in the following:

- A defensible basis on which to justify manpower budgets
- A basis on which to grade the efficiency and effectiveness of individual organizational units
- A scientific basis on which current and future staffing requirements may be established
- Work standards which will indicate employee work output expectations
- A basis on which to measure employee performance

- Upon implementation, an expected increase in productivity of approximately 15% should be realized. This will result in an additional savings of approximately 26 FTEs which, when translated to budget amounts to \$1,040,000 per year, including ERE (26 FTEs X \$40,000 = \$1,040,000). These FTEs are not reflected in the recommended organization chart, but will be reflected in the anticipated long term savings.

Implementation

- Implement changes
- Establish initial standards
- Review with employees
- Establish working standards
- Revise staffing levels as appropriate
- Estimated time line is 6 months.

REQUIREMENT FOR STANDARDIZED POLICY/PROCEDURE

Current Situation

While conducting interviews within the Air Quality and Waste Programs Divisions, it was observed there are very few written Department Policies or Procedures designed to instruct staff as to the appropriate manner in which to perform their functions.

Many thick manuals of E.P.A. regulations, and many established "Rules" (Arizona Administrative Code Rules) exist, with many more Rules currently in development.

However, the situation appears, as one engineer described it, to be that each staff determines essentially on their own or by questioning other staff how to proceed on a given issue, what answers to present to the public who may be making an inquiry, or where to direct clients to receive the best, most efficient services.

Impact

- Clients are given differing responses to their inquiries, dependent upon which staff person may be contacted
- Confusion exists on the part of the served public (and seemingly on the part of much staff also) regarding just what is required of them in any given situation, or whom they need to contact to obtain clarification.

Recommendations

We recommend taking the following actions:

- Create a standardized Policy Manual which will govern those issues relevant to a Department of this size and nature
- Ensure the Policies contained therein are particularly specific to the responses and directions which will be provided to the public

- Provide adequate distribution of Policy Manuals throughout all Divisions, Sections and Units of the Department so as to ensure access by all staff
- Establish Standard Operating Procedures (SOPs) based upon these Policies by which staff will be guided in the answers provided to members of the public making inquiries to the Department
 - Include sufficient directives in the SOPs to ensure all engineering expectations of the public, and the processing of documents impacting the public, are managed in essentially the same style for all clients.

Benefits

The benefits of implementing these recommendations will include:

- A more consistent style of interaction with the public
- A better informed staff as to how they are to respond to public inquiries, schedule their work load, and the standards by which they will make work requirements known to their customers
- Improved public relations, resulting in a more cooperative interaction with customers
- Lessened number of complaints received, and needing response.

Implementation

Implementation steps are essentially identified within the "Recommendations" section of this Point.

- Time frame: Approximately 6 months.

NEED FOR SERVICE-ORIENTED, CUSTOMER CONCERNED ATTITUDE

Current Situation

Throughout the interviews conducted within the Air Quality Division, and some beyond that Division, we have observed a general lack of real concern for the clients (the regulated community, businesses) of the Department of Environmental Quality.

For example, during one interview when a staff stated a strong resistance to accepting a backlogged workload of other staff in order to assist in bringing assignments current, he was questioned about the effect of these backlogs on the customer. His response, after a considerable pause, was "Oh, I guess we do need to think of them."

Impact

Activities charged to the Department as a major part of their responsibilities are being slowed down (e.g., issuance of permits in the various divisions; review of applications for various activities), thus creating these backlogs (in part; staffing issues from the past have also significantly impacted on that situation). More importantly, the public's view of and attitude toward this regulatory agency is impacted in a very negative manner.

Recommendations

We recommend the following actions be taken:

- Immediately initiate a continuing informational campaign, from the Director's office down through all management structures, impressing upon staff the necessity of a client-focused work attitude
- Initiate a training program designed for regular delivery, promoting the necessity of being concerned for client issues and considerations
- Ensure that Policies and Procedures reflect this orientation, by establishing work schedule requirements to prevent long delays in responding to client contacts.

Benefits

The benefits of implementing these recommendations will include:

- Improved image of the Department in the eyes of the client public
- Improved cooperation from that clientele in all transactions with the Department
- Leveled work load demands and lessening of frustrations, resulting from the improved cooperation anticipated
- Fewer number of complaints channeled through the Governor's office directed at the Department.

Implementation

Implementation is essentially delineated in the "Recommendations" section above, and requires simply:

- Initiation of the communique system from the Director's office
- Implementation of the training program
- Emphasis, through Assistant Directors and Section Managers, on the inclusion of appropriate policy, procedure and work directive to ensure these concerns are met
- Time line for implementation may be very short, with top management sharing these concerns -- approximately 2 months.

ESTABLISHMENT OF A CENTRAL PLANNING OFFICE

Current Situation

Most of the formal planning function is performed within the three areas of air, water and waste. Two of the Offices have a Section or Unit specifically designated as Planning: the Office of Air Quality and the Office of Water Quality. The third area, the Office of Waste Programs, has no designated planning unit.

The principal effort at the Office level is devoted to preparing the DEQ Work Plan. Very little planning guidance is issued from the top except that associated with what is referred to as the "Strategic Plan," which is related to the budget. Primary programs are not developed on a long term basis, making it difficult to project resource requirements over a five year period, as a minimum.

Impact

The absence of a formal, long range plan and phased program leaves the Director and senior managers without firm goals and objectives with which to guide the organization from its currently recorded status to some established point in the future. The result is the maneuvering of the organization from one crisis to another. There can be no consistency in effectively managing the resources without identifiable landmarks from which to assess programs against their goals and objectives. Further there is no gauge with which to measure the performance of the organization.

This issue is briefly discussed in the Recommendation "Program Coordination-Certification Section-Placement," which provides the manpower resources to staff a central planning office. A total of five FTEs are made available for this purpose.

The general functions of the planning organization would be to prepare a long range projection of the workload to be performed, the supporting resources such as equipment, materials and facilities, all of which are to be translated in terms of budgets. A further function is to translate guidance and requirements from EPA into operating schedules and to prepare the FY Programs to be presented to the Governor's Office and State Legislature, and to provide the basis on which the annual budgets may be calculated.

In addition, this office would be responsible for program adjustments as effected by changes in budgets and other resource availability. Other functions such as reporting program status and progress to senior management would also be performed.

Recommendations

We recommend achieving a greater efficiency and management effectiveness through the following steps:

- Establish a central planning office within DEQ under the Deputy Director
- Provide staffing for this office by utilizing positions made available from the office of Water Quality
- Approve the organization assignment (see Exhibit 82, Management and Budget Section, Proposed Organizational Chart).

Benefits

Implementation of the above recommendations will result in the following:

- The Director and senior management staff will be provided a documented plan which will include the basic goals and objectives of the Department from a centralized office
- The entire Department can benefit from guidelines which transcend all functional and topical areas
- There will be a central point of contact from which all plans and program data will be available
- Coordination of planning, guidance and data will be effected from one place, insuring that all such data is completely reviewed, understood, and not conflicting or at cross purposes between the operating offices

- No additional positions will be required in that the Plans and Programs Office can be staffed from manpower resources already available within the Department
- Budgets may be fully supported by coordinated and approved programs formed into a cohesive Departmental management position or policy
- A coordinated translation of Federal and State mandates as affects the total Department or its integral parts.

Implementation

The time line to implement the recommendations is estimated approximately 60 days to:

- Process personnel transfer documents
- Revise personnel services reporting codes as appropriate
- Revise policies, procedures and organization structure
- Revise organization manuals to reflect assignment of function including mission and goals.

PLACEMENT OF AUDIT FUNCTIONS

Current Situation

The internal audit organization is located as a unit under the Management, Budget and Audit Section of the Office of Administration (see Exhibit 68, Management, Budget & Information Resources Management Sections, Current Organizational Chart).

As of January 1, 1992 there were three FTEs authorized for the audit functions. One position was vacant. The functions performed are the same as nearly all internal auditing organizations, whether they are in the governmental or the private sector. The general auditing functions cover such topical areas as financial performance and compliance. The DEQ auditing organization also performs other duties such as special investigations and studies.

Most of the auditing workload in DEQ is related to the Office of Administration's financial functions. The generally accepted auditing practice is that audits be performed at arms length from the subject audited. In the case of DEQ this arms length posture does not exist, since the auditing unit is under the same manager as are the comptroller units being audited.

Impact

The less-than-arms-length relationship between auditor and the audit subject could allow unacceptable bias into the audit practice. In other words a manager can audit himself/herself. The current situation does not allow the Director to insure accurate and unbiased evaluation of his department. This is not to say that the present organizational assignment of the audit function has created any problems, and no evidence was found which might so indicate. However, the safeguards against this possibility should be in place and is the primary reason that the auditor normally reports to the Director.

Recommendations

We recommend achieving a greater efficiency and utilization of personnel through the following steps:

- Transfer the Auditing Unit functions from the Office of Administration to the Deputy Director's Office

- Transfer three FTE positions from Administration to the Deputy Directors Office to perform the audit functions.

Benefits

Implementation of the above recommendations will result in the following:

- The Director will be assured that the auditing functions are performed at arms length
- Any possible bias or influence that could exist from the present assignment within Administration will be minimized or eliminated
- The manager of the Office of Administration will be relieved of the task of auditing himself
- The credibility of the audit reports will be significantly enhanced by the independence of the audit function.

Implementation

Estimated time line for implementation is 30 days requiring:

- Processing appropriate personnel actions
- Up-dating cost center codes for reporting
- Up-dating policies and procedures
- Revising organization and functions manuals.