

State of Oregon Department of Environmental Quality

Information Technology and Modernization Overview

Presented to the Joint Legislative Committee on Information Management and Technology

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Oregon DEQ Mission



To be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

Oregon DEQ: Organization

Environmental Quality Commission/Governor

DEQ Leadership Team

Eastern Region

Western Region

Northwest Region

Air

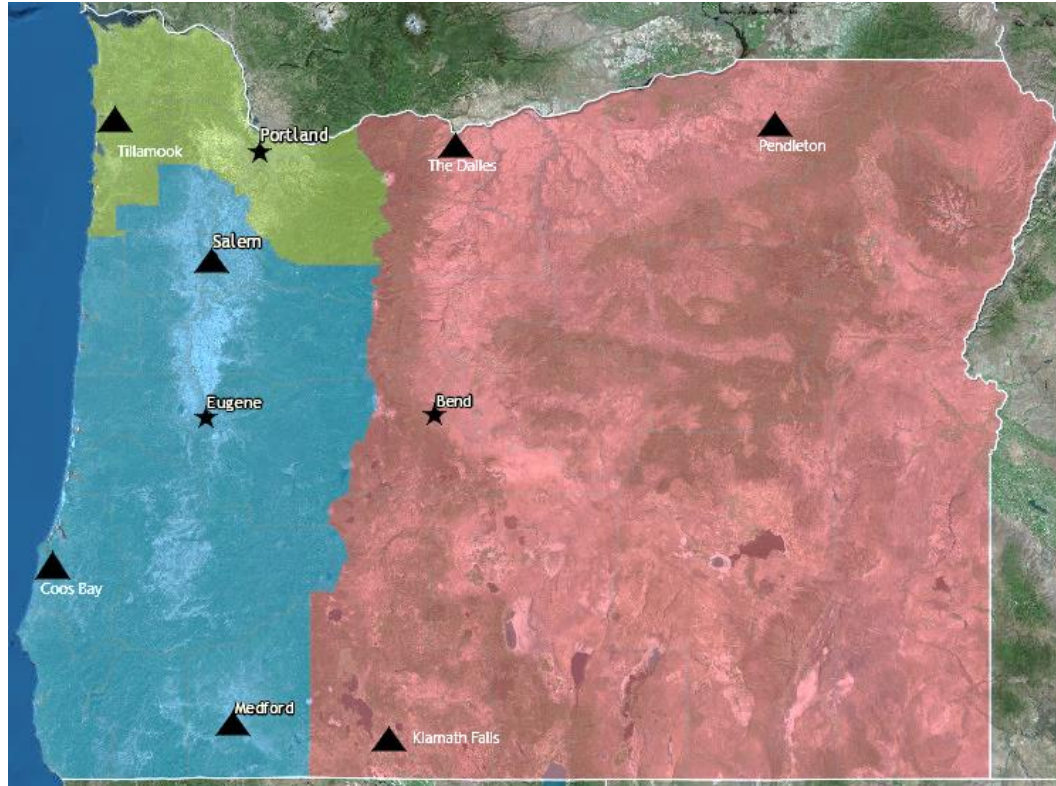
Land

Water

**DEQ
Mgmt**

Lab

Oregon DEQ in Communities



Oregon DEQ: Core Programs

Water Quality



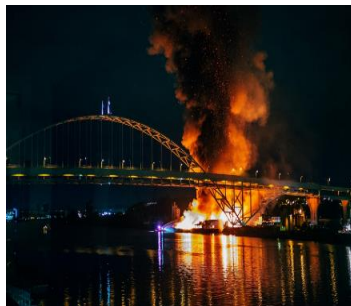
Air Quality



Solid & Hazardous Waste



Environmental
Cleanup



Emergency
Response



Clean Water State
Revolving Fund

Oregon DEQ: Accountability

Recommendations and Implementation Plan

NPDES Permitting Program Review

November 2016

Prepared for
Oregon Department
of Environment Quality

Prepared by
MWH, now part of Stantec
in collaboration with
Larry Walker Associates



MWH

now
part of

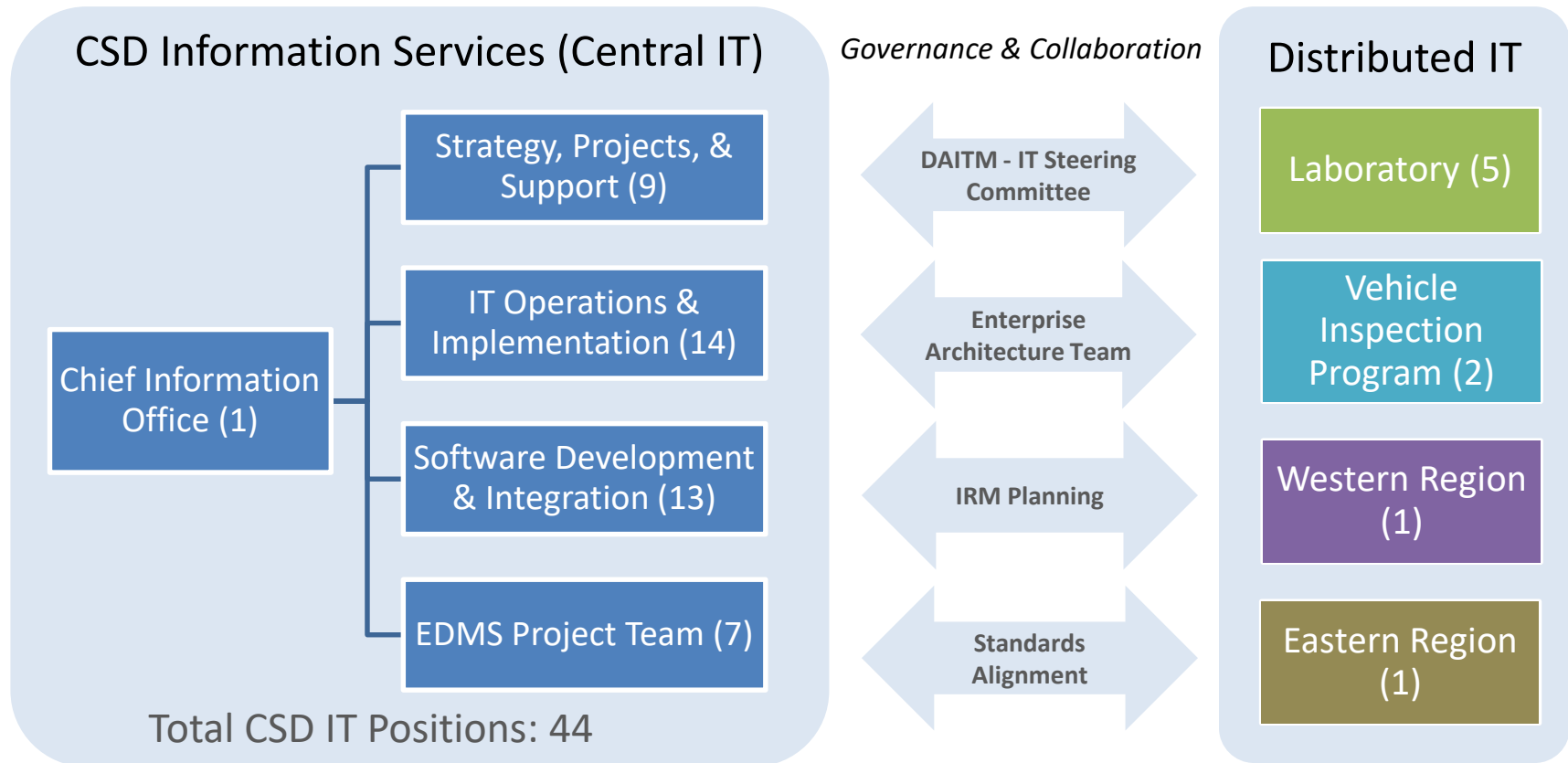


Stantec



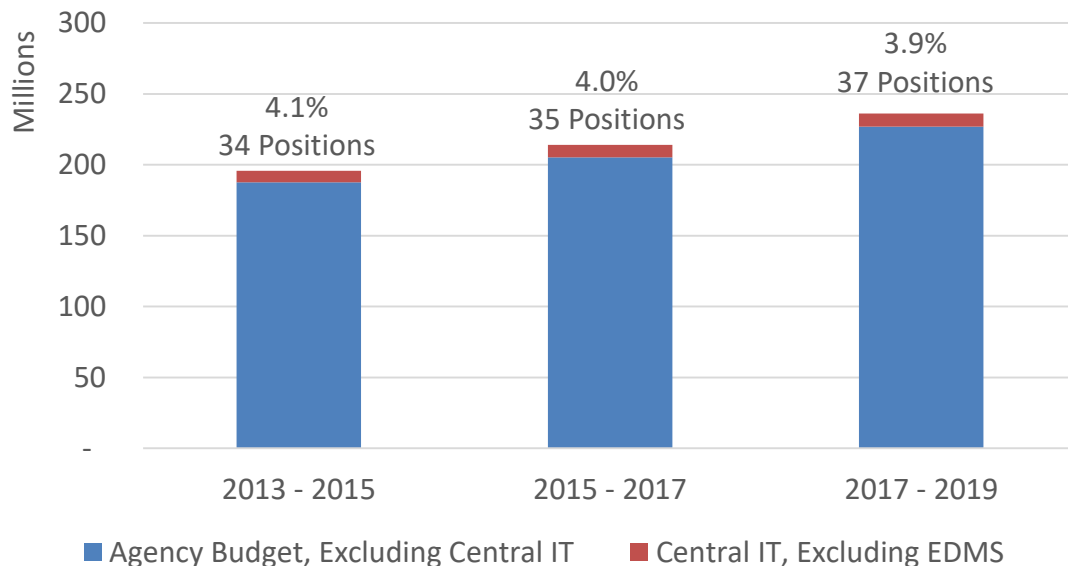
- Performance Management System
- 2016-17 Water Program external review (MWH)
- 2018 Secretary of State performance audit: Air Permitting & Inspections
- Strong new Leadership Team

Information Technology Functions

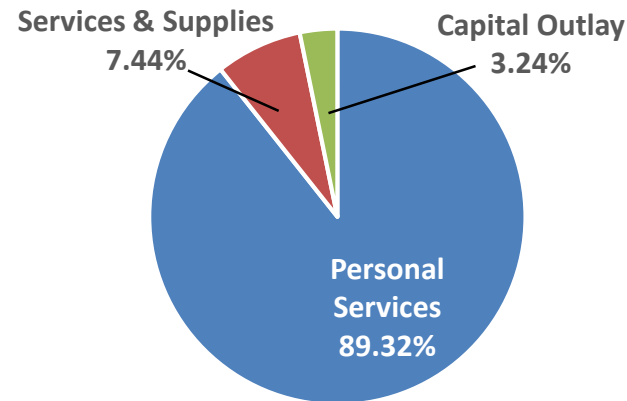


Information Technology Budget

Central IT as Percent of Agency Budget



2017-19 Central IT Budget



Personal Services: \$8.28 M
Services & Supplies: \$0.69 M
Capital Outlay: \$0.30 M
Total: \$9.27 M

Note: Agency Budget is Operational Budget only (excludes Non-limited & Debt Service SCRs)

Information Technology Vision

DEQ's Information Technology organization will set the standard for operational excellence among State of Oregon agencies.

How We Work to Set the Standard

Robust IT Governance

IRM Strategic,
Tactical &
Operational Plans

Steering Committee

Enterprise
Architecture Team

OSCIO/ESO, ITIL, TOGAF
& PMBOK Standards

Application Consolidation

Environmental Data
Management System

Oregon Records
Management System

Office 365

Atlassian Jira

Lean Operations & Development

Consolidation

Standardization

KPIs & SLAs

Cloud & SaaS

Lightweight Apps

Disciplined SDLC

Prioritized Design Principles

1 – Security

2 - Reliability

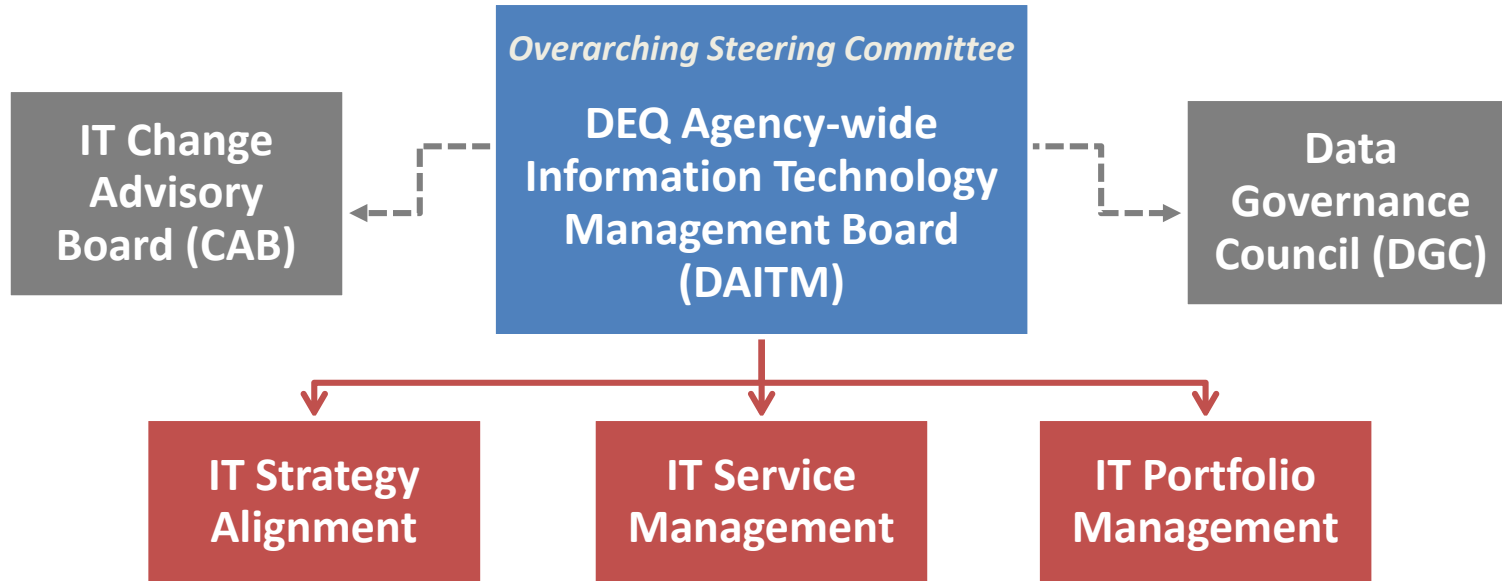
3 - Maintainability

4 - Scalability

5 – Features

FOUNDATION: MODERN, BUSINESS-ALIGNED IT SYSTEMS & SERVICES

Enterprise IT Governance Structure

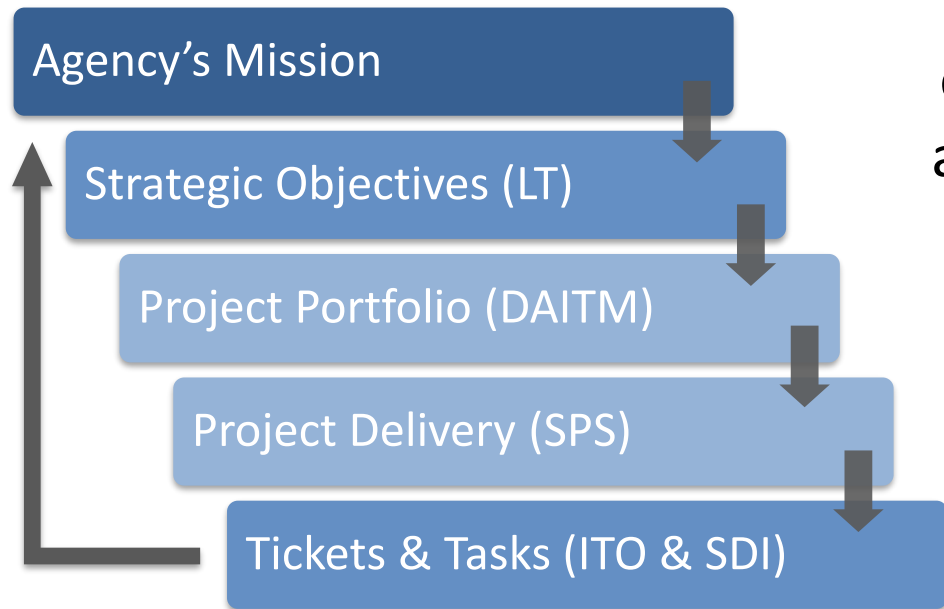


delegated authority



direct oversight

Strategic Alignment of IT Services



As a **service-oriented** IT organization, we work to assure that our initiatives ladder up to support the agency's mission.

Information Resource Management Strategic Plan

Supporting DEQ's mission and Natural Resource policy area IRM

The plan defines strategic goals for 2018-2020

1. Provide valuable IT systems & insights
2. Responsibly manage enterprise IT resources
3. Assure security & privacy of IT assets
4. Invest in workforce and partnerships

The plan maps objectives to goals

- Create IRM Tactical Plan to guide project oversight
- Create an IRM Operational Plan to guide IT service delivery
- Improve efficiency, information access, standardization, cost/benefit analyses, governance, and information security

Current IT Environment & Systems

IT Environment

13 DEQ office locations

8 vehicle testing locations

1 datacenter

Microsoft server environment

Email: Exchange 2010

Collaboration: SharePoint 2010

Database: SQL Server 2016

IT Systems

Custom apps & Access databases

- 109 for permitting & licensing:
Air 16, Land 32, Water 32, Enterprise 29
- 100 have no maintenance budget
- 73 additional in Air, Land, Water, & Lab

ESRI ArcGIS Server

Cloud-based Workday HRIS

Cloud-based Kronos time-keeping

Major IT Initiatives & Projects

Recently Completed

- Enterprise IT governance overhaul
- IRM Tactical and Operational Plans
- Agile processes for development and IT operations
- Workday HRIS implementation

Currently Underway

- Kronos timekeeping implementation
- Office 365 & SharePoint 2019 migration planning
- Clean Water State Revolving Fund → preparing for SG1 (POP #163)
- Oregon Clean Vehicle Rebate Program → approaching SG3
- Environmental Data Management System → approaching SG3 (POP #140)

Environmental Data Management System (EDMS)

Critical systems challenges and inefficiencies impact DEQ's mission

Systems Challenges

- Numerous disparate systems
- Many are 10-15 years old & use obsolete technologies
- Lack of integration inhibits reporting & analytics
- Significant time & resources needed to maintain compliance

Inefficiencies

- Many isolated, redundant & manual business processes
- No available e-commerce
- Paper & mail-based processes
- Lack of standardization
- Extensive backlog of permit applications & renewals

EDMS Provides Numerous Benefits

Systems Solutions

- Replace up to 104 legacy systems, Access databases & exchanges
- Eliminate data silos
- Strengthen internal controls
- Reliable vendor-managed system with financially-backed SLA
- Enable electronic reporting
- Support mobile technology

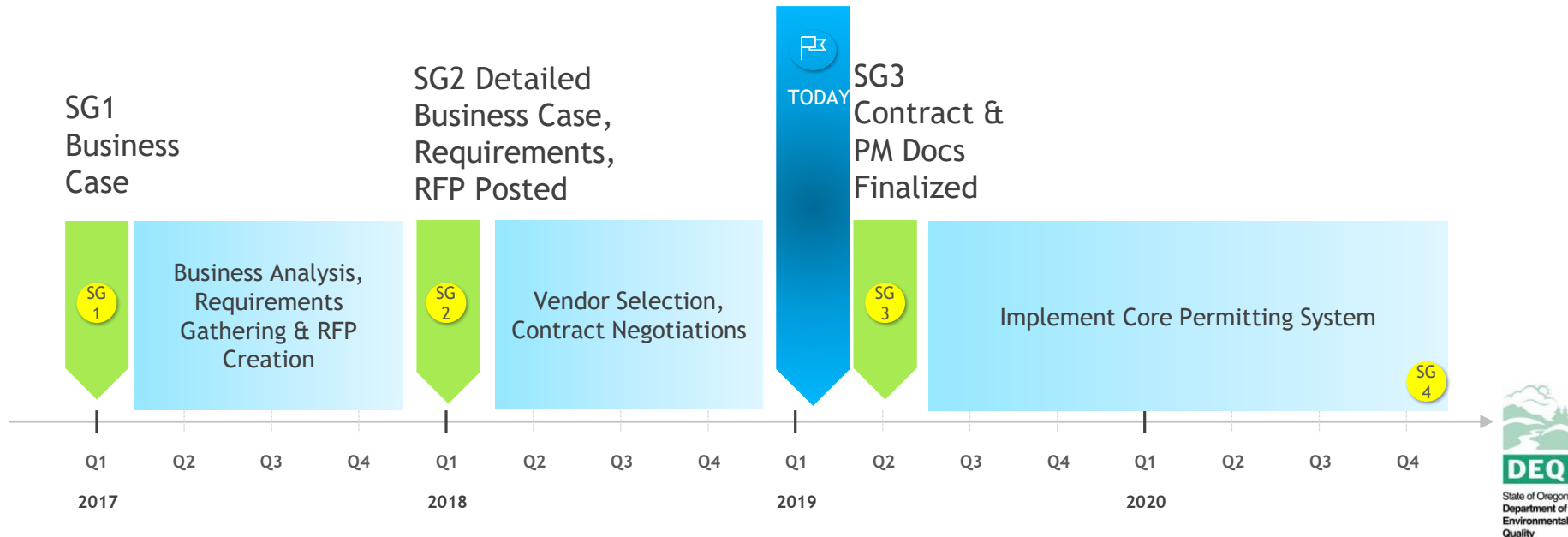
Efficiencies

- Unified system easier to maintain, secure, support, train & scale
- Standardize processes & workflows
- Speed permitting & reduce backlog
- Self-service website for regulated community & records requests
- Enable e-commerce
- Improve stakeholder satisfaction

EDMS Scope Measures

Scope Measures	
Primary legacy systems to be replaced	42
Secondary legacy systems to be replaced	54
External data exchanges	8
Business requirements	Completed
Technical requirements	Completed
Number of permit categories supported	338
Number of permit types supported	11

EDMS Schedule



EDMS Progress to Date

- ✓ Partnered with OSCIO and DAS Procurement Services
- ✓ Completed business analysis for permitting process
- ✓ Created enterprise level requirements
- ✓ Engaged with independent quality assurance vendor
- ✓ Selected vendor, enfoTech Inc., through competitive RFP
- ✓ Completed contract negotiations
- ✓ Built dedicated team of EDMS Project staff
- ✓ Learned from other states' experiences with modernization

EDMS Budget

Request to Legislature 2017/2018 (\$)	\$4.8 Mil
Expenditures 17-19 (\$)	\$3.7 Mil
Request to Legislature 2019 (\$)	\$5.1 Mil
Planned Expenditures 19-21 (\$)	\$7.4 Mil
Number of Continued Positions	7
Project Cost Through Dec. 2020	\$9.5 Mil
Total Cost of Ownership Through Dec. 2028	\$18.1 Mil

EDMS Risk & Mitigation

Key Risk	Risk Mitigation
Time impact on DEQ staff to support data migration	Staffing plan to support data migration effort
Comprehensive communication needed agency-wide	Establish web content and communication processes
Significant change implications for DEQ staff and processes	Outreach to programs and divisions; recruiting change champions; Prosci Methodology
Uniform decisions require cross-divisional collaboration	Develop cross-functional resource groups

EDMS Next Steps

- ☐ Stage Gate 3 endorsement
 - ☐ Finalize the System Security Plan
 - ☐ Execute contract with chosen vendor, enfoTech
- ☐ Project implementation kick-off
 - ☐ Discovery meetings with enfoTech technical staff
 - ☐ Finalize the data migration plan
- ☐ Prioritize the program implementation
 - ☐ Begin configuring the system to meet DEQ's needs

Thank You



State of Oregon

Department of Environmental Quality