ADWR Application Modernization Project

Gartner Risk Assessment
August 2024

Prepared For: Arizona Department of Water Resources
Date: August 2nd, 2024
Engagement: 330088066 | Version 1.0

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Gartner's Point of View

Gartner's second risk assessment provides an update to the initial scoring and review of ADWR's pending project proposal to modernize its current systems.

This report is meant to provide third-party, objective insights on the health of the project now and the mitigation status of previously identified risks from the baseline assessment.

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Several key risk contributors have been addressed or resolved

The administrative planning phase mitigated many of the key risks that were identified in Gartner's initial risk report from April

Before

1. Project Contract and Spending Not Tied to System Development Milestones

2. Level of Effort Underestimated by Salesforce

3. Lack Of Capability Prioritization

4. Benefit Realization Not Well Defined

Today

1. Salesforce has agreed to move to a fixed fee contract with spending tied to development milestones

2. Salesforce project team bringing more knowledgeable and qualified resources

3. Detailed requirements and capabilities and a prioritization of solution areas

4. A better understanding of success metrics, with product acceptance tied to budgetary approval

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Risks across observed categories have reduced significantly since the initial assessment

Gartner identified 68 risks in the Baseline Risk Assessment in April 2024. The scorecard categories were predominantly documented as being areas of medium or high risk. As evident by the new scorecard, many risks have been mitigated.

The following numbers validate the project health progression: 26 risks have been resolved, and there are now zero high-rated risks.

Baseline Risk Assessment – April 2024

Domain	Risk Category	Trend
1. Strategy & Leadership	1.1 Governance	
	1.2 Executive Support	
	1.3 Business Case & Benefit Realization	
	1.4 Sourcing & Vendor Management	
2. Project Controls	2.1 Scope	
	2.2 Schedule	
	2.3 Budget	
	2.4 Resources	
	2.5 Risk & Issues	
	2.6 Project Comm. & Collaboration	
	2.7 Quality Assurance	
3. Foundational	3.1 Infrastructure & Hardware	
	3.2 Security	

Domain	Risk Category	Trend
4. Solution Development & Implementation	4.1 Design Process & Requirements	
	4.2 Architecture & Design	
	4.3 Development & Configuration	
	4.4 Testing	
	4.5 Interfaces & Integration	
	4.6 Deployment	
5. Data Management	5.1 Data Controls	
	5.2 Data Conversion	
	5.3 Reporting & Analytics	
6. End User Implementation	6.1 Organizational Change Management	
	6.2 OCM Communication	
	6.3 Training & Knowledge Transfer	
	6.4 Support	

Risk Assessment – August 2024

Domain	Risk Category	Trend
1. Strategy & Leadership	1.1 Governance	
	1.2 Executive Support	
	1.3 Business Case & Benefit Realization	
	1.4 Sourcing & Vendor Management	
2. Project Controls	2.1 Scope	
	2.2 Schedule	
	2.3 Budget	
	2.4 Resources	
	2.5 Risk & Issues	
	2.6 Project Comm. & Collaboration	
	2.7 Quality Assurance	
3. Foundational	3.1 Infrastructure & Hardware	
	3.2 Security	

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4. Solution Development & Implementation	4.1 Design Process & Requirements	
	4.2 Architecture & Design	
	4.3 Development & Configuration	
	4.4 Testing	
	4.5 Interfaces & Integration	
	4.6 Deployment	
5. Data Management	5.1 Data Controls	
	5.2 Data Conversion	
	5.3 Reporting & Analytics	
6. End User Implementation	6.1 Organizational Change Management	
	6.2 OCM Communication	
	6.3 Training & Knowledge Transfer	
	6.4 Support	

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The fixed fee contract and planning phase mitigated primary risks identified during the initial assessment

1 Payments not tied to milestones

2 Underestimated complexities and vague vision for MVP

3 Unclear functionality definitions and user stories

4 Data mapping schedule management

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Bright Spots for this Reporting Period

Fixed Fee Contract: ADWR and Salesforce agreed to a fixed fee contract. The new contract structure ensures that payments are tied to the acceptance of deliverables. This structure mitigates many of the risks that arose due to the previous time and materials contract.

New Refined Scope: ADWR and Salesforce collaborated to understand capabilities and requirements, allowing them to scope the level of effort and assign story points. They then prioritized business unit needs based on budget and total story points, leading to a refined project scope.

User Story Development: Whereas the backlog previously had an overabundance of user stories with duplicates and poor categorization, the user story development process is sanitized and tightly controlled, whereas items are only being entered in Jira once they've been bottoms-up identified in requirement sessions.

Data Migration Efforts: Data mapping, cleansing, and migration efforts have been much more efficient. There is a better understanding of what needs to be done and by when. Salesforce is providing support when needed and there have not been last minute requests to the ADWR team.

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Impactful changes to the project structure are driving progress

Key Activities & Accomplishments

Accomplishments From This Week

Architecture: On Track (Trending ahead of schedule)
- Align on Integration open questions: USPS Integration,
- Key Topics: Discovery Framework
- Set up Environments for Build
- Working through ArcGIS with updated mapping components
- Prep for Onboarding new team members

Data: On Track
- Mapped: Payment, Fee, Fee Item,
- Started Mapping: Application, ApplicationAuthorizationPlace, Monitoring (need to finalize)
- Discussed Account/Contact

User Stories: On Track (Trending Ahead)
- Refine User Stories for Sprint 3
  - Refine Surface Water Automation needs
- Acceptance and PO Approval for Sprint 2 Stories by ADWR
- Solution Review Stories for Sprint 1

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Data Tracking Progress

Data Activity	Description	Data Mapping SFDC + ADWR Partnership		Data Views ADWR	Data Loading SFDC	
		Due Date	Progress	Due Date	Due Date	Progress
Wells 55	13 Tables (not including 5 cd tables)	08/26	90%	09/08	Prt 1 9/29 Prt 2 10/20	--
Time Tracking, LTF	4 Tables	08/26	95%	09/15	09/29	--
Shared Objects	3 Tables	08/26	85%	10/20	11/10	--
Surface Water	~13 Tables	09/29	0%	11/10	Prt 1 12/01 Prt 2 12/22	--
Adjudications	~7 Tables	10/20	0%	12/22	01/19	--
Field Services (GWSI)	~10 Tables	11/10	5%	01/19	Prt 1 01/19 Prt 2 02/09 Prt 3 03/02	--

RAID Log Tracking

Key Decisions

Will External Users need MFA	07/25	
What is the SSO tool (ADFS or Okta)	07/25	
Jira/Salesforce Name	08/01	

Key Action Items

|	
Notarization Tool Confirmation	09/01
Notarization Tool License Procured/Available	09/30
SDD and TDD feedback	07/25

RAID LOG (Link)

User Story Refinement Progress
Getting to Build Ready

Sprint	Story Refinement SFDC		Story Review and Signoff ADWR		Jira Story Solutions SFDC	
	Due Date	Progress	Due Date	Progress	Due Date	Progress
Sprint 1	7/12	100% Completed On Time	7/19	100% Completed Early	7/30	100% Completed Early
Sprint 2	7/23	100% Completed On Time	8/2	100% Completed On Time	8/13	5% On Track
Sprint 3	8/9	10% On Track	8/16	0%	8/27	0%
Sprint 4	9/10	--	9/18	--	10/7	--
Sprint 5	10/4		10/11		10/29	
Sprint 6	10/29		11/6		11/22	

Deliverable Tracking: Build Readiness

Deliverable	Initial Review/Feedback	Status	Reviewed/To Be Reviewed By	Final Deliverable	Status
Sprint Plan	6/27/24	✅	Thalya, Matt, Ryan	6/28/24	✅
Branching Strategy and Environment Management	7/9/24	✅	Brian, Neeraja	7/19/24	✅
Security Model	7/11/24	✅	Jose, Brian, Neeraja, Matt, Brandon, Ryan	7/19/24	✅
Solution Design Document (SDD)	7/19/24	✅	Matt, Ryan, Brandon, Brian, Neeraja	7/26/24	✅
Technical Design Document (TDD)	7/18/24	✅	Matt, Ryan, Brandon, Brian, Neeraja	7/26/24	✅

Full Project Timeline
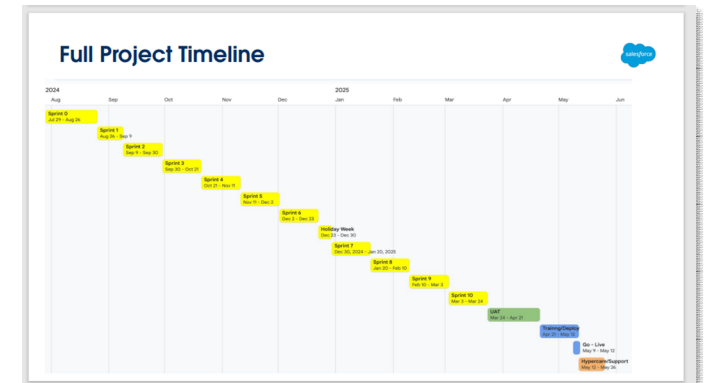
Updates from Salesforce status report dated 8.2.2024

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Key Risks to the Project

The overall project Risk Rating is *Medium-Low*. Key Contributors to this rating are:

1. **Additional Project Management Expertise Needed:** Strong project management is essential to navigate the complexities, manage risks proactively, and ensure that internal tasks and deadlines are met. The project schedule is at risk if the governing body does not enhance the ADWR team with more experience in transformational enterprise implementations.

2. **Undefined legacy data testing methods:** The use of non-client data could result in issues with the integrity of the system's automation and validation capabilities. Salesforce needs to coordinate with ADWR to establish what sample data needs to uploaded to testing environments to ensure the system will function correctly and meet the business's needs.

3. **No Salesforce Admin role:** ADWR needs to be prepared to manage the admin duties of the system post-implementation. This includes areas like user management, system maintenance, data management, configurations and integrations, and security. While training methodologies have been discussed, ADWR has not identified a resource for this role.

Gartner's assessment of the App Modernization Project overall risk rating is *Medium-Low*

Note: Please see Slide 11 for comments ADWR provided Gartner on August 2nd, 2024.

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Application Modernization Project IV&V High Priority Risks

Risk ID & Description	Probability	Impact	Composite Score	Mitigation Status
(SL01) Additional Project Management Expertise: If the project governance body does not augment the ADWR team with a project management resource with transformational enterprise implementation PM experience, internal tasks and deadlines may not be met, putting schedule at risk.	3	4	12	**In Progress** – ADWR has begun mobilizing on defining the role scope to augment the current team with a part-time contract resource to oversee PM activities and ensure ADWR is meeting timeline commitments set forth by Salesforce.
(DM01) No Testing of Legacy Data: If legacy data is not adequately tested in the new system, then there is a risk that the new system will not operate as intended, nor will reporting or data quality be up to standard.	3	4	12	**In Progress** - The SOW does not include SFDC as being responsible for importing live/legacy data into environments for ADWR to conduct proper testing. Sample legacy data will be needed to uploaded for accurate testing by ADWR.
(EU04) Readiness to Administer the System: If ADWR is not properly prepared to take over the admin duties post-implementation then the application will not have the right resources to manage it going forward.	4	3	12	**In Progress** – As described in the SOW, SFDC and ADWR will jointly create a training plan. Additionally, SFDC will provide 10 Train-the-Trainer sessions, and the initial content needed to create user guides. ADWR has not shared a plan to hire an internal system admin position in the future.

Note: Please see Slide 11 for comments ADWR provided Gartner on August 2nd, 2024.

Notes:

1. SFDC (Salesforce Dot Com) refers to Salesforce staff

SL: Strategy & Leadership - **PCR:** Project Controls - **FR:** Foundational Risks
SDI: Solution Development & Implementation - **DM:** Data Management - **EU:** End User Implementation

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High priority areas to be considered for future success

Risk ID & Description	Probability	Impact	Composite Score	Mitigation Status
(EU07) 10-Day Post-Implementation Support Period: If the system does not work as expected, or has major defects, then the tight (10 day) window for post go-live support may not be sufficient.	5	2	10	**Open** – Post Go-Live Services are limited to 10 days as currently described in the SOW (Section 2.3, page 12).
(SDI07) Technical Architect Turnover Impact: If Salesforce has more turnover at the architectural levels of the project, ADWR is at risk of having other foundational design pieces facing a rework.	2	5	10	**In Progress** - The fixed fee contract mitigates a large portion of the risks associated with the loss of the SFDC architect. However, this new resource is highly knowledgeable of ADWR processes, team members, and has vast experience with similar projects so losing her would still have an impact on the project timelines and potentially solution quality. The probability of this is low but the impact would be high.
(SDI08) Bringing Over All Relevant Legacy Business Processes at Once: If business processes and logic are not carefully mapped and validated then the new system may not accurately reproduce current processes.	2	5	10	**In Progress** – Significant work went into the design and refinement of the scope during contract negotiations. Business units and processes were prioritized to optimize the Day One benefits for ADWR. However, this remains a risk because future work could reveal missing business processes.

Note: Please see Slide 11 for comments ADWR provided Gartner on August 2nd, 2024.

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ADWR Comments

ADWR reviewed this assessment report on August 2, and made the following comments:

Slide 8: "2. Undefined legacy data testing methods: The use of non-client data could result in issues with the integrity of the system's automation and validation capabilities. Salesforce needs to coordinate with ADWR to establish what sample data needs to uploaded to testing environments to ensure the system will function correctly and meet the business's needs."

- 'Data mapping and data uploads are planned for early in the development process to enable a copy of legacy production data to be used during development.'

Slide 9 under "(EU04) Readiness to Administer the System:" says "ADWR has not shared a plan to hire an internal system admin position in the future."

- 'We discussed this extensively with Salesforce and they agreed that current ADWR Salesforce staff are competent to fill this role.'

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Application Modernization Project Resolved Risks

Risk Title & ID	Category	Mitigation Status
(DM02) Disparate Systems May Cause Data Management Issues	Data Management	Resolved
(FR01) Legacy Delphi Applications	Foundational Risks	Resolved
(FR02) Security Considerations Not Articulated	Foundational Risks	Resolved
(PCR01) Align on Sprint Planning	Project Controls	Resolved
(PCR03) Lack of Specificity for Lower-level Functionalities	Project Controls	Resolved
(PCR05) Vague Visions for MVP	Project Controls	Resolved
(PCR08) Tight Timeline	Project Controls	Resolved
(PCR10) Payments Aren't Tied to Milestone	Project Controls	Resolved
(PCR11) Lagging Invoices	Project Controls	Resolved
(PCR12) Time & Materials Contract	Project Controls	Resolved
(PCR19) Lack of ADWR Risk Log	Project Controls	Resolved
(PCR22) No Vendor QA Resource	Project Controls	Resolved
(SDI03) Inconsistent Acceptance Criteria Process	Solution Development & Implementation	Resolved
(SDI04) User Story Readiness	Solution Development & Implementation	Resolved
(SDI09) Reworking Foundational Build Items	Solution Development & Implementation	Resolved
(SDI11) Demo Management	Solution Development & Implementation	Resolved
(SDI14) Overlap of Phases	Solution Development & Implementation	Resolved
(SDI15) No Finalized Integration Strategy	Solution Development & Implementation	Resolved
(SDI16) Downstream Data Integration Impacts Must Be Considered	Solution Development & Implementation	Resolved
(SL04) Increase SME Engagement	Strategy & Leadership	Resolved
(SL06) No Set Performance Metrics	Strategy & Leadership	Resolved
(SL07) Lack of Experienced Vendor Resources	Strategy & Leadership	Resolved

SL: Strategy & Leadership - **PCR:** Project Controls - **FR:** Foundational Risks
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Gartner advises ADWR keep these additional considerations in mind to mitigate potential future risks

1

Begin the search for an internal architect:

Current internal developer roles do not include an experienced Salesforce architect. This role will be needed to design builds for the remaining business units that are not included in this project.

2

Formalize testing plans:

Detailed testing plans with defined roles and responsibilities need to be developed and communicated to the ADWR team to ensure expectations are clear. Part of this plan should include timelines for when Salesforce will upload legacy data for the team to test.

3

Create mitigation playbook for schedule slippage:

ADWR needs to establish a framework that can be utilized throughout project challenges. It should include items such as root cause analysis, estimation reassessment, introducing buffer times, etc.

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Project Plan Review

WBS	Task Name	Duration	Start	Finish	% Complete	Resources	Functionality
1	**Sprint 0**	4 week	07/29/2024	08/23/2024			
1.1	Build Readiness	10 days	07/29/2024	08/09/2024		ADWR\SFDC	
1.2	Onboarding	5 days	08/12/2024	08/16/2024		ADWR\SFDC	
1.3	Sprint Prep	5 days	08/19/2024	08/23/2024		ADWR\SFDC	
2	**Milestone 1**		0				
2.1	**Milestones 1 Sprints 1 & 2**	25 days	08/26/2024	09/27/2024			
2.2	**Sprint 1**	10 days	08/26/2024	09/06/2024			Start - Address Verification, Licensing, Notarization, Payment Processing, Base Setup, Wells
2.2.1	Sprint 1 Refinement	.25 day	08/26/2024	08/26/2024		ADWR\SFDC	
2.2.2	Build & QA	8 days	08/26/2024	09/05/2024		SFDC	
2.2.3	Product Owner Test & Acceptance	.5 day	09/05/2024	09/05/2024		ADWR	
2.2.4	Sprint Planning & Refinement	1 day	09/06/2024	09/06/2024		ADWR\SFDC	
2.2.5	Demo	.25 day	09/06/2024	09/06/2024		SFDC	
2.2.6	Retro	.25 day	09/06/2024	09/06/2024		ADWR\SFDC	
2.2.7	Data Mapping & Data Cleansing	10 days	08/26/2024	09/06/2024		ADWR\SFDC	Data Mapping Starts for - Wells, Time Tracking, Licensing, Shared Objects
2.3	**Sprint 2**	15 days	09/09/2024	09/27/2024			Start - Mapping\GIS, Application Mgmt., Customer Portal, Surface Water
2.3.1	Sprint 2 Refinement	.5 days	09/09/2024	09/09/2024		ADWR\SFDC	
2.3.2	Build & QA	10 days	09/09/2024	09/20/2024		SFDC	
2.3.3	Product Owner Test & Acceptance	1.5 days	09/23/2024	09/24/2024		ADWR	
2.3.4	Sprint Planning	1 day	09/24/2024	09/25/2024		ADWR\SFDC	
2.3.5	Sprint Refinement	1 day	09/25/2024	09/26/2024		ADWR\SFDC	
2.3.6	Demo	.5 day	09/27/2024	09/27/2024		SFDC	
2.3.7	Retro	.5 day	09/27/2024	09/27/2024		ADWR\SFDC	Finish - Address Verification & Licensing
2.3.8	Data Mapping & Data Cleansing	15 days	09/09/2024	09/27/2024		ADWR\SFDC	Data Mapping Starts for - Surface Water & Adjudications, Payment Processing
3	**Milestone 2**		0				
3.1	**Milestones 1 Sprints 3 & 4**	30 days	09/30/2024	11/08/2024			
3.2	**Sprint 3**	15 days	09/30/2024	10/18/2024			Start - Time Tracking; Finish - Payment Processing
3.2.1	Sprint 3 Refinement	.5 day	09/30/2024	09/30/2024		ADWR\SDFC	
3.2.2	Build & QA	10 days	09/30/2024	10/11/2024		SFDC	
3.2.3	Product Owner Test & Acceptance	1.5 days	10/14/2024	10/15/2024		ADWR	

Latest project plan submitted to ADWR by Salesforce Professional Services

Project Plan Observations

- Project cadences meet expectations to support three-week sprint phases through completion, with No Design or Discovery phases as they're being worked now in a bridge contract

- The plan is high-level; ADWR will need to discuss with Salesforce what are the critical dependencies and associated dates for those items, fair to request a version of the plan with the next level of detail as the project approaches implementation

- Project scope aligns with latest Statement of Work

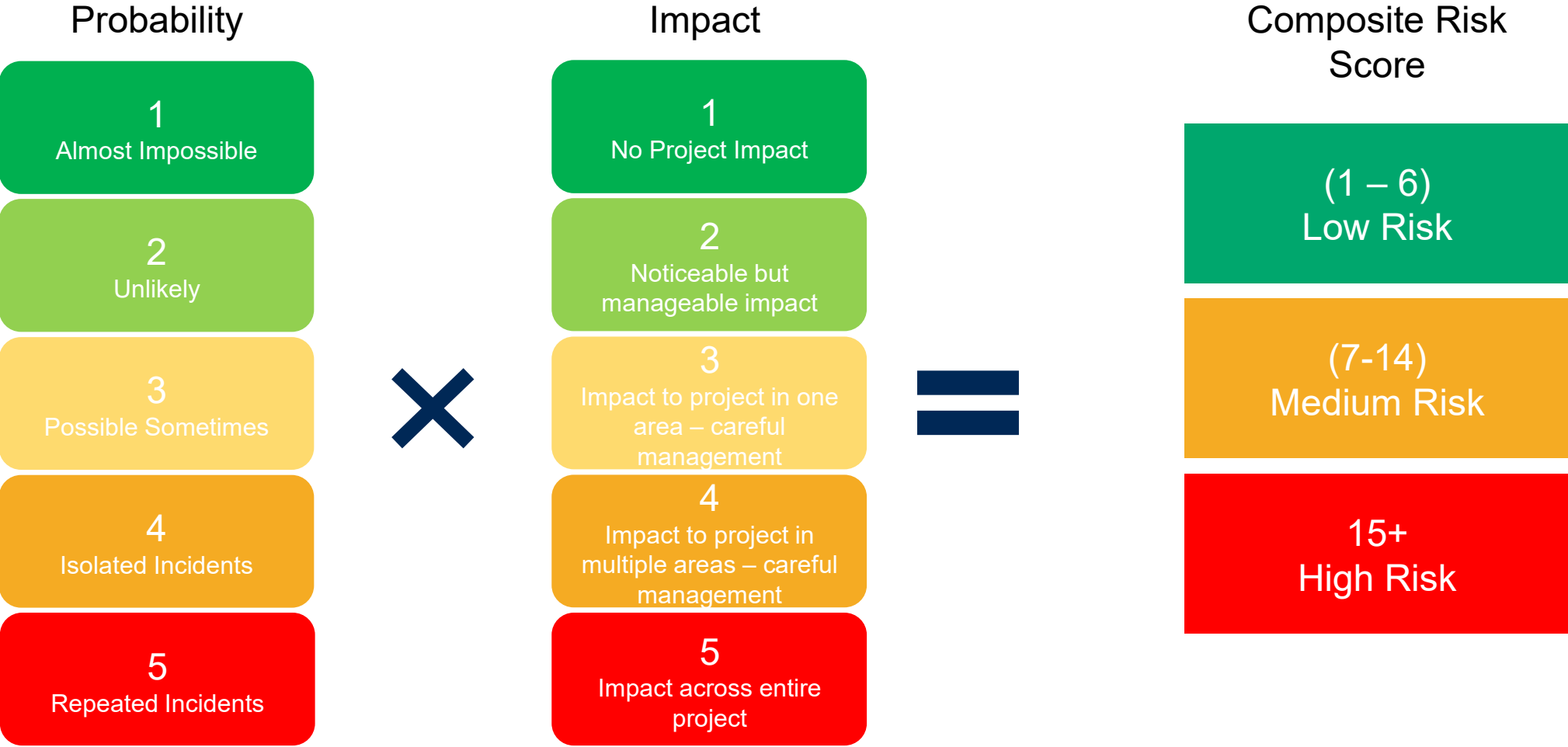- Timeline is consistent with Gartner's expectations given scope, resourcing, and client considerations

Contract Reviewed: Salesforce Implementation Services FFP SOW_31July2024 (Draft no cost)

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Appendix:

Composite Risk Scoring Definition, Contact Sheet, & Signoff

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Gartner Assesses Risks on Both Probability of Occurring and Impact, Then Calculates a Composite Risk Score

Probability

1 Almost Impossible
2 Unlikely
3 Possible Sometimes
4 Isolated Incidents
5 Repeated Incidents

$\times$

Impact

1 No Project Impact
2 Noticeable but manageable impact
3 Impact to project in one area – careful management
4 Impact to project in multiple areas – careful management
5 Impact across entire project

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Composite Risk Score

(1 – 6) Low Risk
(7-14) Medium Risk
15+ High Risk

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Data Collection – Interview Participants for ADWR Application Modernization Project

Gartner used these interviews to learn about ADWR's challenges, pain points, gaps, unique needs, and goals for the future.

Agency	Interview Participants	Role	Date
ADWR	Lisa Williams	Manager of Enterprise Data	7/17/2024
	Brian Lisac	ADWR Salesforce Developer	7/17/2024
	Jing-Shing Hsu	Application Development	7/17/2024
	Ryan Jackisch	Product Owner	7/18/2024
	Lynne Smith	Project Sponsor	7/19/2024
	Matt Marshall	ADWR CIO	7/25/2024
	Scott Selin	IT Budget Director	7/25/2024
ADOA – ASET	Haleh Farhadi	Project Oversight	8/2/2024

Note: Additional participants may be identified upon review of the Project Organization Chart

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Thank You

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Deliverable Acceptance

This deliverable has been through the State's review and acceptance process and is approved.

_____

Project Manager

_____

Date

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