



# AUDIT HIGHLIGHTS

## Ransomware Readiness Assessment

### WHY WE DID THIS AUDIT

This Ransomware Readiness Assessment audit was included in the Council-approved fiscal year 2022/23 Audit Plan. The objective of this audit was to evaluate the effectiveness of controls for preventing, identifying, responding to, and recovering from a ransomware event.

### BACKGROUND

We contracted with an independent IT audit consultant, Berry Dunn McNeil & Parker, LLC (BerryDunn), to perform this work. The scope of the work included an assessment of relevant cybersecurity controls and facilitating table-top exercises to test the City's readiness to detect and respond to a ransomware event.

Ransomware is a continuously evolving form of malware that can encrypt the City's data, preventing organizations from accessing computer files and systems, and requiring a ransom to be paid to recover the data.

The National Institute of Standards and Technology (NIST) established standards to better manage and reduce cybersecurity risk. The NIST Cybersecurity Framework (CSF) is organized by five key functions – Identify, Protect, Detect, Respond, and Recover. BerryDunn assessed approximately 70 NIST CSF control subcategories relevant to ransomware and incident response preparedness.

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### WHAT WE FOUND

**Several areas can be matured to help improve the City's overall ability to respond to a ransomware event.**

Overall, BerryDunn found that the City has foundational pieces in place to effectively detect and respond to a ransomware or cyber related event.

BerryDunn assessed 68 NIST CSF security control subcategories relevant to ransomware and incident response preparedness. The assessment identified 23 areas with low to moderate risk ratings where improvements were recommended.

In general, areas for improvement included developing and enhancing:

- Response plans and security policies to reflect the operating environment, minimize potential impacts of an event, and to take into consideration the business needs of City departments.
- Communication paths and personnel responsibilities during an event.

### WHAT WE RECOMMEND

We recommend the IT department implement the recommendations identified in the BerryDunn detailed report.

### MANAGEMENT RESPONSE

The department agreed with the recommendations and plans to implement changes by December 2024.