# Monitoring and Controlling

| Project Title | Project Manager | Customer Name |
|---|---|---|
| Merrilton Mobile Payment Portal | Zephaniah Williams | City of Merrilton |

**A. Risk Assessment**

| Risk Description | Likelihood | Impact | Responsible Person | Prevention/Mitigation Strategy |
|---|---|---|---|---|
| Legacy data incompatibility during integration | M | H | Fatima Kalani | Conduct early data mapping and validation, involve data engineers to perform test migrations |
| Delay in module customizations across departments | H | H | Alex Patel | Cross-train team members and allocate flexible buffer days in schedule |
| Loss of grant funding post-June 30 | H | H | Mei Phan | Prioritize all grant-funded purchases now, escalate approvals if needed |
| Insufficient citizen outreach before rollout | M | M | Maya Johnson | Finalize communication plan, utilize both email and utility bill inserts |
| Staff resistance to software adoption | M | M | Jack Martin | Schedule early hands-on training and feedback sessions to ensure buy-in |

*Key: L=Low, M=Medium, H=High*

**B. Gantt Chart**

**** See Attached PDF****

**C1. Earned Value Analysis**

| Team | Budget ($) | EV ($) | AC ($) | PV ($) | CV ($) | CPI | SV ($) | SPI |
|---|---|---|---|---|---|---|---|---|
| Team 1 | 9,200 | 6,175.96 | 6,800 | 7,360.00 | -624.04 | 0.91 | -1,184.04 | 0.84 |
| Team 2 | 17,600 | 4,616.48 | 4,500 | 5,866.67 | +116.48 | 1.03 | -1,250.19 | 0.79 |
| Team 3 | 24,000 | 4,123.20 | 4,500 | 5,837.84 | -376.80 | 0.92 | -1,714.64 | 0.71 |
| Team 4 | 21,200 | 5,471.72 | 5,350 | 8,295.65 | +121.72 | 1.02 | -2,823.93 | 0.66 |
| Team 5 | 33,200 | 2,287.48 | 2,950 | 1,606.45 | -662.52 | 0.78 | +681.03 | 1.42 |
| Totals | 105,200 | 22,674.84 | 24,100 | 28,966.61 | -1,425.16 | 0.94 | -6,291.77 | 0.78 |

**C2. Earned Value Projections**

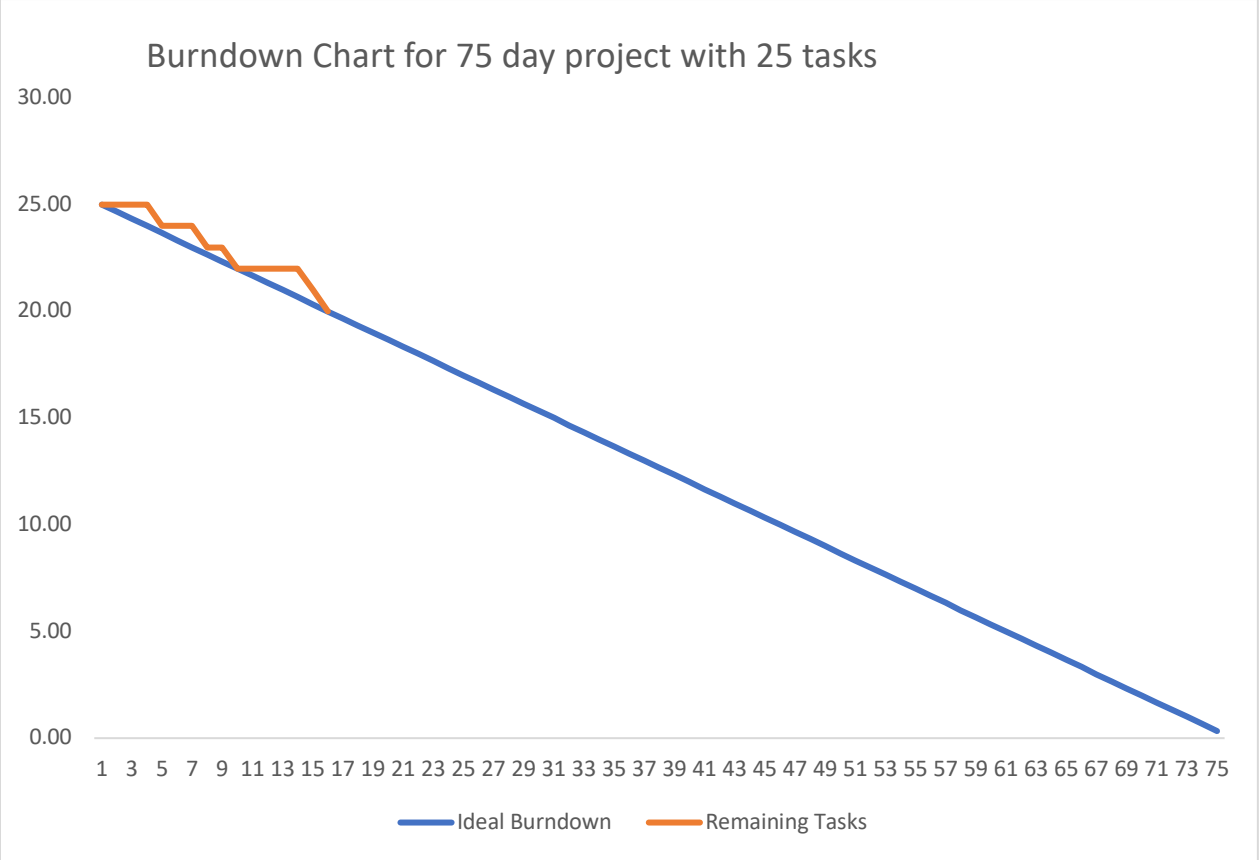
| Team | Budget ($) | EAC ($) | ETC ($) | Est. Duration | Rounded | Diff | Old Date | New Est. Comp Date |
|---|---|---|---|---|---|---|---|---|
| Team 1 | 9,200 | 10,129.60 | 3,329.60 | 23.83 | 24 | +4 | 3/28/2025 | 4/3/2025 |
| Team 2 | 17,600 | 17,155.93 | 12,655.93 | 34.31 | 35 | +8 | 4/17/2025 | 4/29/2025 |
| Team 3 | 24,000 | 26,193.25 | 21,693.25 | 52.39 | 53 | +16 | 5/1/2025 | 5/23/2025 |
| Team 4 | 21,200 | 20,728.40 | 15,378.40 | 34.87 | 35 | +12 | 4/11/2025 | 4/29/2025 |

| Team | Budget ($) | EAC ($) | ETC ($) | Est. Duration | Rounded | Diff | Old Date | New Est. Comp Date |
|---|---|---|---|---|---|---|---|---|
| Team 5 | 33,200 | 42,815.67 | 39,865.67 | 43.54 | 44 | -18 | 6/13/2025 | 5/20/2025 |
| Totals | 105,200 | 116,992.85 | 92,922.85 | 189.94 | 191 | +22 | — | — |

**C3. Discussion of Earned Value Analysis and Projections**

The Earned Value Analysis shows that most project teams are experiencing schedule delays, with mixed results on cost efficiency. SPI values range from **0.66 to 1.42**, indicating that while several teams are behind schedule, one team (Payment Processing) is progressing faster than planned. CPI values range from **0.78 to 1.03**, showing that some teams are over budget while others are slightly under. Notably, **Team 2 (Utilities)** and **Team 4 (Public Housing)** performed relatively well in terms of cost (CPI > 1.0), while **Team 5 (Payment Processing)** is significantly ahead of schedule but struggling with budget control (CPI = 0.78). The updated forecasts estimate a **total project cost of approximately $117,025.84**, exceeding the original budget of **$105,200** by nearly **$11,826**. While this overrun is concerning, it is far less drastic than previously estimated. Nevertheless, schedule variances across key teams highlight the need for corrective action to avoid compounding delays and further cost escalation.

**D1. Burndown Chart**




**D2. Discussion of Burndown Chart**

The updated burndown chart for the 75-day project reveals that the project is currently behind schedule, with actual progress diverging from the ideal completion curve around day 5 and continuing to lag through day 16. As of this reporting period, the team has only completed approximately **20% of the total planned tasks**, while the ideal trajectory calls for closer to **33% completion**. This indicates a delay of nearly **25%** in planned task completion. Foundational tasks such as system requirements gathering and initial database development have been addressed, but delays in module customization, device procurement, and testing activities have impacted overall velocity. This performance gap suggests coordination breakdowns and underutilized capacity across teams. If not addressed quickly, the delay could cascade, further jeopardizing project deadlines.

**E. Mitigation Plan**

1. **Scope Prioritization:** Immediately identify and defer lower-priority features, such as optional enhancements or secondary integrations (e.g., secondary billing exports), allowing the team to focus on core modules critical for launch. This will improve the likelihood of meeting the project deadline and containing scope creep.

2. **Reallocation of Resources:** Temporarily reassign developers or technical staff from less time-sensitive components (such as training modules or merchant account setup) to high-risk areas like customization and testing. Balancing the workload based on real-time progress can improve throughput in lagging segments.

3. **Bi-weekly Integrated Status Reviews:** Establish structured check-ins every two weeks involving all team leads and stakeholders to review task progress, risks, and dependencies. These sessions should focus on issue escalation, deadline validation, and rapid decision-making to keep the project on track and support early detection of potential delays.

# References

Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK guide)* (6th ed.). Project Management Institute.