The Graph PR #571 Summary

Introduction

This supplemental document is a list of the issues that were part of [PR #571](link) which are detailed in [The Graph Protocol Arbitrum Bridge Audit Report Updated - July 2022.pdf](link). Below is a brief summary of the functionality that this PR covers, the scope of contracts included in this PR, a list of the specific issues that are related to it (coded by severity), and the status as to whether they are resolved or not.

Summary

[PR #571](link) implements a new reward generation and distribution system to support distribution of rewards on both L1 and L2. Instead of minting rewards on demand, they are now periodically dripped into a rewards reservoir on L1, and a fraction of the dripped rewards are also sent to the L2 side. The corresponding GIP document that provides an in-depth design description is [GIP-0034](link).

Scope

- **Repository URL:** https://github.com/graphprotocol/
- **Commit:** 403be9401a693068ec380a9fbc4f24036ae8794e
- **Files in Scope:**
    - contracts/governance/Managed.sol
    - contracts/l2/reservoir/L2Reservoir.sol
    - contracts/l2/reservoir/L2ReservoirStorage.sol
    - contracts/reservoir/IReservoir.sol
    - contracts/reservoir/L1Reservoir.sol
    - contracts/reservoir/L1ReservoirStorage.sol
    - contracts/reservoir/Reservoir.sol
    - contracts/reservoir/ReservoirStorage.sol

- contracts/rewards/IRewardsManager.sol
- contracts/rewards/RewardsManager.sol
- contracts/rewards/RewardsManagerStorage.sol
- contracts/staking/Staking.sol
- contracts/token/IGraphToken.sol

Issue IDs with status

The following issues were related to this PR. Next to each ID is the status as to whether it is resolved or unresolved. Please note that each issue ID (i.e. L-01) can be used to look up the details of the specific issue in the larger The Graph Protocol Arbitrum Bridge Audit Report Updated - July 2022.pdf document.

- **M-01** Governance delays could negatively impact the rewards system (resolved)
- **L-01** DoS when changing the issuance rate (resolved)
- **L-02** DoS when setting the L2 fraction to zero (resolved)
- **L-03** Potential incorrect rewards emission when GRT token supply changes (resolved)
- **L-04** One-time use function can be called repeatedly (resolved)
- **L-05** L2 initial supply feature invalidates token supply assumptions (resolved)
- **L-06** L2 Reservoir issuance rate might not be accurate (resolved)
- **L-07** Lack of input validation (resolved)
- **L-10** L1 accounting system pushes incorrect supply value (resolved)
- **L-11** Require statements with multiple conditions (unresolved)
- **L-12** Unset RewardsManager fails silently (resolved)
- **N-05** General code improvements (resolved)
- **N-07** Inconsistent setting of drip interval (resolved)
- **N-09** Incorrect or outdated documentation (resolved)
- **N-10** Initialization inconsistency (resolved)
- **N-11** Getter function inconsistency (resolved)
- **N-13** Multiple contracts per file (resolved)
- **N-14** Naming suggestions (resolved)
- **N-15** Lack of documentation for potential out-of order calls to drip (resolved)

- **N-16** Typographical errors (resolved)
- **N-20** Unneeded maximum value calculation (resolved)
- **N-21** Unused imports (resolved)