

TechRate
April, 2024



SMART CONTRACTS SECURITY AUDIT REPORT



Techrate_audits



Techrate



Techrate1

Audit Details



Audited project

Swamps



Deployer address

0x7273a4cAE4E3CccE1354B47De03772f20dDd243
0x76170D4904065585F3B6d282d30Cd6FD6B23e97C



Client contacts:

Swamps team



Blockchain

swamps_net



Project website:

Not provided

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by BASE3 to perform an audit of smart contracts:

- WSWP:
<https://swamps-explorer.tc.l2aas.com/address/0x555F5B7aC35F5D83E71041d1f35ECa10C10fbC9b/contracts#address-tabs>
- SwampsGOVToken:
<https://swamps-explorer.tc.l2aas.com/address/0xdcF447711c03E1d7B43daE1b684501058ecb8D17/contracts#address-tabs>
- XSwampsGOVToken:
<https://swamps-explorer.tc.l2aas.com/address/0x4340cF4Ac0C23D467a3f3088323E99CeA506E519/contracts#address-tabs>
- SwampsMaster:
<https://swamps-explorer.tc.l2aas.com/address/0xFe95322dc33033777431a97e8837dbe880B56500/contracts#address-tabs>
- NFTPoolFactory:
<https://swamps-explorer.tc.l2aas.com/address/0x6aF1f27904fe899B454434e37B1552bb779Ee220/contracts#address-tabs>
- YieldBooster:
<https://swamps-explorer.tc.l2aas.com/address/0x28330C0A2204E5C78E94F643248b7a75C4ab00bB/contracts#address-tabs>
- Dividends:
<https://swamps-explorer.tc.l2aas.com/address/0xe30c92A8dDBf50682cD37E20F4c3A806cB583BC5/contracts#address-tabs>
- Launchpad:
<https://swamps-explorer.tc.l2aas.com/address/0x56181614Cc845d249E0F2Fe17fFdf471fAFc81c/contracts#address-tabs>
- HyperPoolFactory:
<https://swamps-explorer.tc.l2aas.com/address/0x227781A6e143275eF1E8C496Af8e2eeE44Bb32F8/contracts#address-tabs>
- PositionHelper:
<https://swamps-explorer.tc.l2aas.com/address/0xC8dF85d59CB9fC57b01ebfd446A0Cc7C4813bA57/contracts#address-tabs>
- SwampsStableSwapTwoPoolDeployer:
<https://swamps-explorer.tc.l2aas.com/address/0xCf28be86A15eE491e9588b8Ba8e02F002090A690/contracts#address-tabs>
- NonfungiblePositionManager:
<https://swamps-explorer.tc.l2aas.com/address/0x9C31F8028A2E43c368c2AD3f0523bbd2e19B51DA/contracts#address-tabs>
- SwampsInterfaceMulticall:
<https://swamps-explorer.tc.l2aas.com/address/0x5F125263C5D07E121e94684c238081f6f5779d84/contracts#address-tabs>
- SwampsStableSwapLPFactory:
<https://swamps-explorer.tc.l2aas.com/address/0xb800B18E546673efC07c3992113686c172d455cA/contracts#address-tabs>
- SwampsStableSwapInfo:
<https://swamps-explorer.tc.l2aas.com/address/0x66d2Ef6ee7Ce3fcCE67555CdE789A1FaaE142570/contracts#address-tabs>
- SmartRouter:
<https://swamps-explorer.tc.l2aas.com/address/0x388d89D7b43832E679947C7CFd53E237237A9eD0/contracts#address-tabs>
- SmartRouterHelper:
<https://swamps-explorer.tc.l2aas.com/address/0x57DB07B11aB3afF17987476e5D8e73011273d98B/contracts - address-tabs>
- MixedRouteQuoterV1:
<https://swamps-explorer.tc.l2aas.com/address/0x4f766aBd66bc3BAdb2b2515060Bc7921518394Fe/contracts#address-tabs>
- QuoterV2:
<https://swamps-explorer.tc.l2aas.com/address/0xC8Faa38f027c3aFac80d0dF6FFB1596954eBe794/contracts#address-tabs>
- TokenValidator:
<https://swamps-explorer.tc.l2aas.com/address/0xE01841a63c5b41D17f5884b63c284967faA68033/contracts#address-tabs>
- SwampsStableSwapThreePoolDeployer:
<https://swamps-explorer.tc.l2aas.com/address/0x2188CDC21aE93536Bb5a8d70395472F5C1C99904/contracts#address-tabs>
- SwampsStableSwapFactory:
<https://swamps-explorer.tc.l2aas.com/address/0x8E58157fd56049b50908cBd2bB7fc76D7d892804/contracts#address-tabs>
- SwampsStableSwapTwoPoolInfo:
<https://swamps-explorer.tc.l2aas.com/address/0x4632BD6A7569929Dc77924DcE4e1D4aEC36203b6/contracts#address-tabs>
- SwapRouter:
<https://swamps-explorer.tc.l2aas.com/address/0x9F8889D051e81ADAcD98c29EB4c627cAfE6309ef/contracts#address-tabs>
- QuoterV2:
<https://swamps-explorer.tc.l2aas.com/address/0x4211b8473B9E60Fdf5056dDF7B1ffB9e94412966/contracts#address-tabs>
- NonfungibleTokenPositionDescriptor:
<https://swamps-explorer.tc.l2aas.com/address/0x3b35B0bcbE910AC8dA824d34487374D89b483d1b/contracts#address-tabs>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Passed
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

No low severity issues found.

Notes:

- Contracts contain code under 8.0.0 solidity version that could control arithmetic overflow/underflow. It is recommended to upgrade version to avoid higher gas fees.
- Uploaded contracts have two QuoterV2 contracts that's differs, be careful about usage.

Owner privileges (In the period when the owner is not renounced)

Dividends:

- Owner can withdraw tokens.
- gMVDTOKEN can allocate and deallocate.
- Owner can add/remove/enable/disable distributed tokens.
- Owner can change CycleDividendsPercent.
- Owner can change _cycleDurationSeconds.

HyperPoolFactory:

- Owner can change defaultFee.
- Owner can change fee address.
- Owner can add/remove exempted addresses.
- Owner can set emergencyRecoveryAddress.

Launchpad:

- Owner can change deallocationCooldown duration.
- Owner can take snapshot.

SwampsGOV:

- Master contract can claim asked amount.
- Owner can set the master address.
- Owner can first set lastEmissionTime.
- Owner can update the allocations.
- Owner can change the emission rate.
- Owner can change the max supply.
- Owner can change treasury address.

SwampsMaster:

- Owner can change the yieldBooster address.
- Owner can add/change a new pool.
- Owner can toggle emergencyUnlock value.

SwampsStableSwapFactory:

- Owner can create swap pair.
- Owner can add pair info.

XSwampsGOV:

- Owner can change redeem ratios and durations.
- Owner can change dividendsAddress.
- Owner can change deallocation fee.
- Owner can edit addresses in transferWhitelist.

YieldBooster:

- Owner can change totalAllocationFloor.
- Owner can toggle forcedDeallocationStatus.
- Owner can call emergency withdraw.

Conclusion

Smart contracts do not contain high severity issues! The further transfers and operations with the funds raise are not related to this particular contract.

Security score: 82.

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.