

## Audit Report

Core Unit Name: SAS

Audit ID: 2022-10-SAS001

Audit Cycle: 2022 - 10 / 2

Audit Result: Approved

Audit Date: 11-17-2022 V1 - 11-23-2022 V2

Budget Statement Submission Date: 11-11-2022

Facilitator contact: @danik

Core Unit Clarification Received on Date: 11-23-2022

Transparency Report: <https://github.com/makerdao-sas/transparency-reporting/blob/main/Monthly%20Budget%20Statements/2022-10.md>

MIP40c3-SP43: <https://forum.makerdao.com/t/mip40c3-sp43-adding-sidestream-auction-services-core-unit-budget-sas-001/10799>

MIP40c3-SP44: <https://forum.makerdao.com/t/mip40c3-sp44-adding-sidestream-auction-services-core-unit-mkr-budget-sas-001/10802>



#	Audit Question					Audit Assessment	Core Unit's Clarification	Immediate CU Action to improve transparency report	Medium Term CU Action to improve transparency report
	Audit Questions to the Structure of the transparency report and consistency with SAS MIP40c3-SP43					Note.- This audit has assessed the data published by SAS in Github "SAS: October 2022 Budget Statement" and the SAS expense site at <a href="https://expenses.makerdao.network/">https://expenses.makerdao.network/</a> .			
0.1	Are the sections in the transparency report in the right order: Actuals, Forecast, MKR vesting and Transfers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.2	Does the actual section include breakdowns per Budget Category, Forecast, Actuals, Difference and Payments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.3	Does the budget forecast cover 3 months with summary and budget category breakdown?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. SAS has submitted a New budget request on October 6th, 2022 <a href="#">MIP40c3-SP85</a> . <b>Ratification is pending.</b> The current budget period covers until November 30, 2022.			
0.4	Does the budget forecast summary and breakdown contain the quarterly budget caps for comparison?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.5	Does the budget forecast summary contain the Global/total budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.6	Are the budget forecast categories in the transparency report the same as in the MIP40c3-SP43?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SAS is using the MakerDAO standard budget categories in the budget statement.			
0.7	Is the SAS operational Multi-sig wallet setup the same as described in the MIP40c3-SP43?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. SAS Operational Wallet quorum (2:3)  Controlled by the SAS Core Unit team Address: 0x465AA62a82E220B331f5ECcA697c20E89554B298 Signers 0x274736890166046f00f424fE864b2E468841ebfE 0x4f3B7fb6204C614B28F0e1f50Dc1C99175631678 0xD95802afC02B49e5C1a6016D44d08fe37EAFec9d			
0.8	Is the SAS operational wallet controlled by more than 1 signer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the SAS operational wallet has a current policy of 2 out of 3 signers			
0.9	Has the SAS auditor wallet receive the initial seed funds from the protocol prior transfer to the SAS wallet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the auditor wallets has received 245,738 DAI from the protocol <a href="https://etherscan.io/tx/0xab810a967ba4a68862c4433ec4185fba1a3ff121bf4b38535a2aab4a8e9908a4">https://etherscan.io/tx/0xab810a967ba4a68862c4433ec4185fba1a3ff121bf4b38535a2aab4a8e9908a4</a> The MIP40c3-SP43 total busget cap less contingency buffer is 245,737.50 DAI and with the 15% buffer included the grand total is 282,598.13.			
0.10	Has the SAS operational wallet received a top-up after the audit of the last transparency report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the SAS operational wallet received 71,530.59 DAI on November 8th, 2022. <a href="https://etherscan.io/tx/0x1a9608d15085d2153ae45b2fc2949d325d88971898f133487ef25d4dece8a319">https://etherscan.io/tx/0x1a9608d15085d2153ae45b2fc2949d325d88971898f133487ef25d4dece8a319</a>			
0.11	Is the SAS Auditor Multi-sig wallet setup the same as described in the MIP40c3-SP43?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. SAS Auditor Wallet quorum (2:2) eth address:0xb1f950a51516a697E103aaa69E152d839182f6Fe Signers: SES Auditor Role Wallet eth:0xb2da57e224949acDDe173a5b8A8160c023ea86e6 SES Accountant Role Wallet eth:0xA2A855Ac8D2a92e8A5a437690875261535c8320C			
0.12	Has the SAS Auditor wallet received the funds from the protocol?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The last transaction was 177,605.74003198 DAI received on October 28th, 2022. The auditor wallet balance is 188,398.75261622 DAI on November 17th, 2022. <a href="https://etherscan.io/tx/0x885b5862f787c00fb0b2e0f567721a1ae2e271f4f09268112f2581d278c94d59">https://etherscan.io/tx/0x885b5862f787c00fb0b2e0f567721a1ae2e271f4f09268112f2581d278c94d59</a> The SAS auditor wallet has returned 81,501.52 DAI to the protocol on November 10th, 2022. <a href="https://etherscan.io/tx/0x8396394c2f847cbd42abdca7447dfb5ccce8837a658b339345ed228809a39df0">https://etherscan.io/tx/0x8396394c2f847cbd42abdca7447dfb5ccce8837a658b339345ed228809a39df0</a>			
0.13	Has the SAS Auditor wallet sufficient funds to be sent to the SAS operational wallet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
	Audit Questions to Transparency Report - Section 1. Last Month Actuals -								
1.1	Is the actuals budget category breakdown the same as in the MIP40c3-SP43?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SAS is using the MakerDAO standard budget categories.			
1.2	Is the transparency report actual's forecast the same as the last published forecast for the same month?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			

1.3	Are the differences between forecast and actuals explained in the transparency report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
1.4	Are the SAS actual expenses within the monthly MIP40c3-SP43 buget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
1.5	Are the SAS actual expenses within the quarterly total MIP40c3-SP43 budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
1.6	Has the SAS Compensation and Benefits cost any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No. There is a perfect match.			
1.7	Has the SAS Travel & Entertainment cost any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The forecast is 1,500, and the actual expense is 1,236, this gives a positive difference of 264.	"Less travelling than planned"		
1.8	Has the SAS Software Development Expense any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No.			
1.9	Has the SAS Software Expense any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 1,256 and the actual expense is 1,704, this gives a negative diff. of 448. The actual expense is within the approved monthly budget for this category.	"higher infrastructure costs than expected"		
1.10	Has the Admin Expense any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No.			
1.11	Has the SAS Professional Services cost any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The forecast is 3,246 and the actual expense is 3,413, this gives a negative difference of 167. This expense is within the monthly approved budget of 5,000.	"Spend more on tax advisor"		
1.12	Has the SAS Gas Expense any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The gas fees forecast is 750 and the actual expense is 44 this gives a positive difference of 706.	"lower gas fees than expected"		
1.13	Has the SAS presented the correct calculation of amounts for the actuals, forecast and difference?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. SAS has corrected the amounsts as indicated in audit v1.	.		
1.14	Has the SAS any budget category that seems inconsistent and needs further investigation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No.			
Audit Questions to Transparency Report - Section 2. Budget Forecast -									
2.1	Does the transparency report display the MIP40c3-SP43 caps for both total and budget categories?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.2	Are the monthly and quarterly budget caps (both totals and per category) the same as in the MIP40c3-SP43?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.3	Are the monthly forecast totals within the MIP40c3-SP43 monthly budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.4	Is the quarterly forecast within the bounds of the MIP40c3-SP43 budget caps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.5	Has the SAS presented the correct calculation of amounts in the budger forecast section?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
Audit Questions to Transparency Report - Section 3. MKR Vesting Overview -									
3.1	Has the SAS indicated the number of FTE in the transparency report's MKR vesting overview?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
3.2	Has the MKR vesting overview the same FTE comparing it to the MIP40c3-SP44?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
3.3	Are the MKR vesting dates the same as in the MIP40c3-SP44?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			SAS should add the year complete the December date 2023 on the original approved budget and review the MKR budget taking in consideration new onboardings.
3.4	Has SAS changed the MKR amounts comparing it to the MIP40c3-SP44?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No.			
3.5	Has SAS explained the MKR change in the transparency report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	This control can only be made if the above question is yes.			
3.6	Is the SAS auditor wallet's lifetime MKR transfer amount correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
3.7	Is the SAS MKR current balance in the auditor wallet correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The current MKR balance is 0.			
Audit Questions to Transparency Report - Section 4. Transfers -									
4.1	Does the SAS operational wallet balances match the transparency report current balance in the calculation made for the new transfer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the current balance in the transparency report is 145,214 and the actual balance in the operational wallet is 145,214.0003133 DAI on November 17th. 2022. <a href="https://gnosio-safe.io/app/eth:0x465AA62a82E220B331f5ECcA697c20F895548298/balances">https://gnosio-safe.io/app/eth:0x465AA62a82E220B331f5ECcA697c20F895548298/balances</a>			
4.2	Are the payments from the operational wallet the same as in the actual section payments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The payment amount in the budget statement is 72,074.50 and on-chain trx. is 72,074.5 DAI on November 4th, 2022. <a href="https://etherscan.io/tx/0xbf3733cd679ac7ce7564b44b3ea5c795b827dd43c48c9d7acaa255acbec48552">https://etherscan.io/tx/0xbf3733cd679ac7ce7564b44b3ea5c795b827dd43c48c9d7acaa255acbec48552</a>			
4.3	Is the SAS latest Github Budget Statement consistent with the data provided in the MakerDAO Ecosystem Dashboard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			

