UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

JOSEPH VAN LOON; TYLER ALMEIDA; ALEXANDER FISHER; PRESTON VAN LOON; KEVIN VITALE; and NATE WELCH,

Plaintiffs,

- against -

DEPARTMENT OF THE TREASURY; OFFICE OF FOREIGN ASSETS CONTROL; JANET YELLEN, in her official capacity as Secretary of the Treasury; and ANDREA M. GACKI, in her official capacity as Director of the Office of Foreign Assets Control,

Defendants.

Civil Action No. 6:22-cv-920

COMPLAINT

Plaintiffs Joseph Van Loon, Tyler Almeida, Alexander Fisher, Preston Van Loon, Kevin Vitale, and Nate Welch, for their Complaint against Defendants Department of the Treasury; Office of Foreign Assets Control; Janet Yellen, in her official capacity as Secretary of the Treasury; and Andrea M. Gacki, in her official capacity as Director of the Office of Foreign Assets Control, allege as follows:

INTRODUCTION

1. Plaintiffs are users of the Ethereum blockchain. They are also users of a privacy protocol known as Tornado Cash, which consists of open-source software code on the Ethereum blockchain. Plaintiffs bring this action to challenge Defendants' addition of Tornado Cash to the Specially Designated Nationals and Blocked Persons (SDN) List. That unprecedented, overbroad action exceeds Defendants' statutory authority, infringes on Plaintiffs' constitutional rights, and

threatens the ability of law-abiding Americans to engage freely and privately in financial transactions.

2. Ethereum is a public blockchain in which nodes cooperate through a peer-to-peer network to maintain and build a transparent, distributed ledger. The blockchain essentially operates as a cooperative, transparent network. Users of Ethereum install an application called a wallet, which generates addresses for the user and a private key that functions like a password. Users can send and receive Ether (ETH) and other crypto assets without the involvement of any intermediary.

3. Transactions are grouped into blocks. As each block is added to the chain, it points to the block before it, forming a chain of blocks. The blocks are publicly and permanently recorded on the Ethereum blockchain. Ethereum's transparency allows verification of transactions, but it also makes it difficult for users to protect their privacy if a third party connects an Ethereum address with their real-world identity.

4. Tornado Cash is not a person, entity, or organization. It is a decentralized, open-source software project that restores some privacy for Ethereum users. Software code is a string of letters and numbers that perform a specific function. Open-source code can be used or distributed by anyone. The Tornado Cash software was developed over many years by a large group of individual contributors, which was made available as open-source code and published as a collection of smart contracts on the Ethereum blockchain.

5. A smart contract is a program stored on the blockchain that runs when predetermined conditions are met. Once a smart contract is deployed on the Ethereum blockchain, it is assigned a public address with which any user can interact. When an individual user interacts with a smart contract, the code automatically carries out a particular, predetermined task without any human intervention. The Tornado Cash smart contracts presently in use are immutable.

6. The most important Tornado Cash smart contracts are called pools. A user can deposit Ether or other Ethereum-based assets from one crypto address into the pool and then withdraw that same asset to a different address, including one that has never been used or associated with the user. Users can withdraw only the assets they deposited, using a secret "key" that the smart contract creates and verifies. Although transactions with the pool are publicly recorded, the pool provides a degree of privacy by permitting individuals to withdraw assets into another address of their choice, making it less likely to be attributed to the user.

7. On August 8, 2022, Defendants added to the SDN List a purported entity called Tornado Cash, listing the website tornado.cash, 37 Tornado Cash smart contracts, and an address that was used to accept donations to develop Tornado Cash projects.[1]

8. The President has delegated certain sanctions authority to Defendants, but that authority is limited to activities involving "any property in which any foreign country or a national thereof has any interest by any person, or with respect to any property, subject to the jurisdiction of the United States." 50 U.S.C. § 1702(a)(1). The Tornado Cash software, including the smart contracts, consists of immutable open-source software code, which is not property, a foreign country or a national thereof, or a person of any kind.

9. Plaintiffs seek declaratory and injunctive relief under the United States Constitution and the Administrative Procedure Act (APA), 5 U.S.C. §§ 500 *et seq.*, to remedy Defendants' unlawful action. OFAC's designation exceeds its statutory authority and is not in accordance with law. *See* 5 U.S.C. § 706(2)(A), (C). OFAC's designation is also unconstitutional under the Free Speech Clause of the First Amendment to the U.S. Constitution and the Due Process Clause of the

[1] The designation lists 45 Ethereum addresses, but several of them are duplicates.

Fifth Amendment to the U.S. Constitution. *See* 5 U.S.C. § 706(2)(B). Plaintiffs respectfully request that this Court hold the designation unlawful, set it aside, and permanently enjoin its enforcement.

JURISDICTION AND VENUE

10. This action arises under the U.S. Constitution and the APA, 5 U.S.C. §§ 500 *et seq*. This Court has jurisdiction pursuant to 28 U.S.C. § 1331.

11. Venue is proper in this District pursuant to 28 U.S.C. § 1391(e)(1) because Plaintiff Joseph Van Loon resides in Cedar Park, Texas, within the Western District of Texas, and Defendants are agencies or officers or employees of the United States acting in their official capacities.

PARTIES

12. Plaintiff Joseph Van Loon is an American citizen and a resident of Cedar Park, Texas. He is an application security engineer at an international technology company, where he performs threat modeling and security testing for applications. He previously worked as an application security engineer at Amazon.

13. Mr. Van Loon owns crypto assets. He has a public Ethereum Name Service (ENS) name that can be traced to him. ENS names are often a person's real name, such as JohnDoe.eth, or are otherwise publicly tied to that person's identity. They are linked to that individual's wallet address.

14. In October 2021, Mr. Van Loon used Tornado Cash to send money to a new, more private wallet address. He did so in anticipation of running an Ethereum validator node, which involves depositing Ether to activate software to validate Ethereum transactions. By adding new blocks to the blockchain, validators earn Ether. The process of running validator nodes is called staking. Running a new validator node is thus a valuable activity, but it may also attract attention from malicious actors. Mr. Van Loon ultimately decided to delay his plan.

15. In August 2022, Mr. Van Loon resumed his plan to run a new validator node. He intended to use Tornado Cash to anonymize his transfer of crypto assets and avoid the attention of malicious actors. After OFAC's designation, he abandoned his plan to run the validator node and lost out on the potentially valuable opportunity to earn Ether.

16. Mr. Van Loon has used Tornado Cash because he believes its anonymizing protocols are safe and because it is integrated into the Ethereum blockchain. He is not confident that alternative protocols would be as safe and convenient. He would use Tornado Cash again to run a validator node or make investments if Tornado Cash were no longer designated.

17. Plaintiff Tyler Almeida is an American citizen and a resident of the state of California. Mr. Almeida is a senior security risk analyst at Coinbase, the largest cryptocurrency exchange platform in the United States. In that capacity, Mr. Almeida works with threat modelers and vulnerability assessors to identify and quantify security and privacy risks for the company, and design compensating controls to mitigate those risks. He is a Certified Information Systems Security Professional.

18. Mr. Almeida owns crypto assets. He maintains a public crypto wallet address that can be traced to him. In March 2022, following Russia's invasion of Ukraine, Mr. Almeida decided to donate relief funds to the Ukrainian government's publicly posted crypto wallet address. Mr. Almeida wanted to make his donation anonymous and was afraid that crypto wallets that donated to Ukraine's public address (and addresses associated with those donor wallet addresses) would be targeted by Russian state-sponsored hacking groups. To anonymize his donation and prevent his financial history from being associated with his political views, Mr. Almeida sent 0.5 ETH to Tornado Cash, which is worth approximately $800 today. Mr. Almeida used 0.2 ETH of

the cryptocurrency he sent to Tornado Cash to make a donation that would be worth approximately $300 today.

19. Since his donation, the anonymized wallet address that he established to make the donation has received unwanted air drops of non-fungible tokens from potentially malicious external sources. Like e-mail spam, those air drops are disruptive and potentially part of a scam.

20. A portion of Mr. Almeida's property—0.3 ETH, worth approximately $500 today—remains locked in Tornado Cash smart contracts. Those funds are now blocked—effectively trapped—pursuant to OFAC's sanctions. Following OFAC's designation of Tornado Cash, U.S. persons are prohibited from dealing with the smart contracts, even to withdraw their own funds. Mr. Almeida would use Tornado Cash again in the future if it were not designated, both to recover his funds and to make future transactions while protecting his privacy and security. Among other things, he is concerned about the potential for his financial history to be used as part of a spam-and-scam scheme that could enable malicious actors to gain access to his private or work accounts.

21. Plaintiff Alexander Fisher is an American citizen and a resident of the state of Michigan. Mr. Fisher manages blockchain and decentralized application infrastructure, with a focus on the Ethereum network. Mr. Fisher previously worked as a network operations specialist and corporate webcasting leader at Ford Motor Company.

22. Mr. Fisher owns crypto assets and purchased his first Bitcoin using Coinbase on or about January 2, 2014. Mr. Fisher has a large presence in the Ethereum community and posts his public ENS name on his public Twitter profile. Mr. Fisher has concerns about hacking, and he wants to protect the safety of his family. In the past, people have been able to use public data sources to find Mr. Fisher's wallet addresses. Until recently, he could use Tornado Cash to protect

his security and privacy while transacting, including to obtain funds for staking and for personal transactions.

23. Mr. Fisher and Plaintiff Kevin Vitale have written proof-of-concept code that used the open-source Tornado Cash code to allow those who stake Ethereum to have greater security and privacy. In 2021, their innovative smart contract was awarded a first-place prize at ETHDenver, a member-owned community innovation festival.

24. If Tornado Cash were not designated, Mr. Fisher would use it to continue transacting for staking and personal purposes while protecting his privacy and security. He is now unwilling to interact with the software out of fear of serious penalties for violating OFAC sanctions.

25. Plaintiff Preston Van Loon is an American citizen and a resident of the state of Tennessee. He is the co-founder of Prysmatic Labs, which describes itself as a "grassroots team of software engineers all around the world building the code behind the Ethereum blockchain." *See* Prysmatic Labs <prysmaticlabs.com> (last visited Sept. 7, 2022). The mission of Prysmatic Labs is to "build[] a more fair, open, and censorship-resistant Internet." *Id*. Mr. Van Loon previously worked as a software engineer at Google.

26. Mr. Van Loon owns crypto assets and maintains a public ENS name that could be traced to him. He has used Tornado Cash on five occasions to protect his privacy and security. Using Tornado Cash allows him to execute personal transactions without connecting them to his publicly known wallet address. It also allows him to experiment with decentralized applications to pursue new crypto business models without connecting them to his publicly known wallet address and personal identity.

27. Mr. Van Loon currently has approximately 1.3 ETH trapped in Tornado Cash as a result of OFAC's designation, which is worth approximately $2,100 today. He would use Tornado

Cash again if it were not designated, both to access those funds and to continue engaging in personal transactions and experiments with decentralized applications.

28. Plaintiff Kevin Vitale is an American citizen and a resident of the state of Michigan. Mr. Vitale is a principal crypto engineer at GridPlus, where he manages, hires, and expands the company's engineering team and provides strategic direction to the company. He also owns and operates a small business, where he is a blockchain network engineer who manages infrastructure for Ethereum-staking and other related blockchain activities. Mr. Vitale has previously worked as a software-development consultant at TD Ameritrade; a senior software engineer at Duo Security, which is now owned by Cisco Systems; and head of mobile development at Domino's.

29. Mr. Vitale owns crypto assets. As part of his job, he has a public ENS name that is posted to his public Twitter profile. Mr. Vitale has concerns about his privacy and safety because malicious actors could target the assets generated by his Ethereum-staking business. Those concerns are not speculative. In 2021, a contractor working in the vicinity of the location where he engages in staking realized that Mr. Vitale staked Ether and asked how much money he made. He worries that other strangers could follow his transaction patterns on the Ethereum blockchain and identify the valuable crypto assets in his possession.

30. When OFAC designated Tornado Cash, Mr. Vitale had imminent plans to transfer 10 ETH, or approximately $15,000, to Tornado Cash for future investments in business opportunities maintaining Ethereum infrastructure. He was prevented from doing so by OFAC's designation.

31. If Tornado Cash were not designated, Mr. Vitale would continue using it for personal purposes and for funding his business operations while protecting his privacy and security.

32. Plaintiff Nate Welch is an American citizen and a resident of the state of Maine. Mr. Welch currently works as a senior software engineer at Coinbase. He maintains the company's crypto wallet, which is used to manage customer withdrawals and deposits.

33. Mr. Welch owns crypto assets. As part of his job, he maintains a public ENS name that is posted to his public Twitter profile. To protect his privacy and security, Mr. Welch has used Tornado Cash on at least six different occasions to avoid harassment from malicious actors. Although Mr. Welch has used other crypto privacy tools, he prefers Tornado Cash because it has the highest volume of users and transactions, which ensures greater anonymity by making it more difficult to trace particular Ether to particular users.

34. Mr. Welch has 1.2 ETH trapped in Tornado Cash as a result of OFAC's designation, which is worth approximately $1,900 today. Mr. Welch would use Tornado Cash again if it were not designated by OFAC, both to access his trapped funds and to continue transacting privately and securely.

35. None of the Plaintiffs is a terrorist or a criminal. None supports terrorism or illegal activity. None launders money. Each is an American who simply wants to engage in entirely lawful activity in private.

36. Defendants are the Department of the Treasury; OFAC; Janet Yellen, in her official capacity as Secretary of the Treasury; and Andrea M. Gacki, in her official capacity as Director of OFAC. The Department of the Treasury is a federal administrative agency; OFAC is a federal administrative agency within the Department of the Treasury. Both the Department of the Treasury and OFAC are headquartered in Washington, D.C. Defendants Yellen and Gacki acted under color of law at all relevant times.

THE ETHEREUM BLOCKCHAIN

37. Ethereum is a blockchain platform that supports the cryptocurrency Ether, other crypto assets, and other applications.

38. Ethereum and other blockchains are immutable, public ledgers consisting of a de-centralized series of data blocks chronologically linked in a chain. The blockchain is shared over a peer-to-peer network, which makes it public and unable to be altered by any single user. Unlike a traditional ledger, a blockchain ledger reflects every transaction that has ever occurred on that blockchain.

39. The transparency of the blockchain is possible because of cryptography. When individuals transact on the blockchain, they do so using public and private keys generated by an application called a wallet. The public key is an address that users can share with others to send and receive money. The private key is a secret string of letters and numbers that operates as a password to sign transactions that can be verified as valid against an account's public key. Private and public keys are linked, and the blockchain ledger transparently reflects the transaction history of the public keys. *See*, *e.g.*, *What Is a Private Key?*, Coinbase <www.coinbase.com/learn/crypto-basics/what-is-a-private-key> (last visited Sept. 7, 2022).

40. The public nature of that ledger is a crucial feature of the blockchain. It allows two users transacting in crypto assets to ensure that the sender possesses the crypto asset being transacted. Anyone may view the balances and transaction history records of users.

41. The transparency of the blockchain also compromises individual privacy. Because all records are transparent and all transactions are linked, a user's complete financial history—including all prior transactions—can be identified when the accounts involved in a transaction are linked to identities.

42. Although a user can create an anonymized wallet address—one that is not publicly linked to that user—if the user transfers assets from his publicly identifiable address or otherwise links his publicly identifiable address to the anonymous address, a third party can use those transactions or links between a user's wallets to identify that user. If a user transacts from a publicly identifiable address, or links his anonymous address to one that is publicly associated with the user, third parties have access to a tremendous amount of personal transaction and financial information related to that user.

THE TORNADO CASH PRIVACY PROTOCOL

43. Tornado Cash is an open-source, decentralized, non-custodial privacy protocol on the Ethereum blockchain.

44. Tornado Cash consists of open-source code known as smart contracts that were uploaded by independent developers over the course of years. Smart contracts are software programs stored on the blockchain that self-execute in response to a transaction signed by a private key. Unless their developers include a feature permitting updates, they cannot be altered or controlled once they are uploaded to the blockchain.

45. Since 2020, the Tornado Cash privacy protocol has consisted of perpetually self-executing code on the Ethereum blockchain that cannot be altered, edited, or otherwise controlled.

46. The smart contracts that make up Tornado Cash allow users to deposit tokens from one address and later withdraw the same tokens—and only those same tokens—for deposit in another address. Although both the deposit and withdrawal are visible on Ethereum's ledger, it does not reflect that the deposit and the withdrawal are linked to the same user. The severing of that link means that an individual can make a withdrawal without exposing his entire financial history to third parties.

47. Tornado Cash is not the only crypto privacy protocol. One feature that sets Tornado Cash apart is its high volume of users and transactions, which protects an individual's privacy by making it more difficult to match deposits and withdrawals. Another advantage of Tornado Cash is its reputation for security and privacy.

DEFENDANTS' AUTHORITY TO IMPOSE SANCTIONS

48. Under the International Emergency Economic Powers Act (IEEPA), the President has authority to take certain actions after "declar[ing] a national emergency with respect to" an "unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States." 50 U.S.C. § 1701(a). After making a declaration, the President may take a broad range of actions. 50 U.S.C. § 1702(a)(1). Specifically, the President may, "under such regulations as he may prescribe, by means of instructions, licenses, or otherwise . . . investigate, block during the pendency of an investigation, regulate, direct and compel, nullify, void, prevent or prohibit, any acquisition, holding, withholding, use, transfer, withdrawal, transportation, importation or exportation of, or dealing in, or exercising any right, power, or privilege with respect to, or transactions involving, any property in which any foreign country or a national thereof has any interest by any person, or with respect to any property, subject to the jurisdiction of the United States." 50 U.S.C. § 1702(a)(1).

49. On April 1, 2015, President Obama issued Executive Order 13694, which declared a national emergency with respect to "malicious cyber-enabled activities." 80 Fed. Reg. 18,077 (Apr. 2, 2015). Executive Order 13694 authorizes the Secretary of the Treasury to identify certain "person[s]" involved in malicious cyber-enabled activities. *Id*. at 18,077-18,078. It also provides that "property and interests in property" of any of those identified persons would be "blocked," meaning the property "may not be transferred, paid, exported, withdrawn, or otherwise dealt in." *Id*. Executive Order 13694 further delegates to the Secretary of the Treasury "all powers granted

to the President by IEEPA as may be necessary to carry out the purposes" of the order. *Id*. at 18,079. The Secretary of Treasury in turn delegated that authority to the Director of OFAC, which maintains the SDN List. *See* 31 C.F.R. § 578.802.

50. Historically, Defendants have used their delegated authority to designate individuals, corporations, other entities, and property on the SDN List. For instance, on February 25, 2022, OFAC added Vladimir Putin to the SDN List. *See Russia-Related Designations*, OFAC (Feb. 25, 2022) <home.treasury.gov/policy-issues/financial-sanctions/recent-actions/20220225_33>.

51. Defendants have also designated Blender.io, a virtual currency mixer. *See Cyber-Related Designation; North Korea Designation Update*, OFAC (May 6, 2022) <home.treasury.gov/policy-issues/financial-sanctions/recent-actions/20220506>. Unlike Tornado Cash, Blender.io is operated under centralized control. Also unlike Tornado Cash, users of Blender.io do not retain ownership of particular crypto assets at all times and instead receive randomly "mixed" crypto assets.

52. Although OFAC has procedures by which a designated person can apply for delisting, no such application is possible here because Tornado Cash is open-source code that is not owned by anyone.

DEFENDANTS' DECISION TO DESIGNATE TORNADO CASH

53. On August 8, 2022, OFAC announced that Defendants had designated Tornado Cash, listing the website tornado.cash and 38 Ethereum addresses (some of which were listed more than once), for inclusion on the SDN List. *See U.S. Treasury Sanctions Notorious Virtual Currency Mixer Tornado Cash*, OFAC (Aug. 8, 2022) <home.treasury.gov/news/press-releases/jy0916>.

54. All but one of the listed Tornado Cash Ethereum addresses is a smart contract. Defendants' action represents the first time that they have added a privacy protocol, smart contract, or open-source code to the SDN List.

55. Twenty of the addresses designated by OFAC are inalterable Tornado Cash pools that, upon information and belief, were still in use as of August 8, 2022. Of those, four allow users to deposit and withdraw funds in increments of 0.1, 1, 10, and 100 Ether (ETH);[2] eleven allow users to deposit and withdraw funds in increments of other cryptocurrencies on the Ethereum blockchain, namely DAI, USDC, USDT, and WBTC;[3] and five allow users to deposit increments of cDAI tokens, which represent the value of a deposit on a decentralized cryptocurrency borrowing and lending protocol.[4]

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[2] Those addresses are as follows:
0x12D66f87A04A9E220743712cE6d9bB1B5616B8Fc
0x47CE0C6eD5B0Ce3d3A51fdb1C52DC66a7c3c2936
0x910Cbd523D972eb0a6f4cAe4618aD62622b39DbF
0xA160cdAB225685dA1d56aa342Ad8841c3b53f291.

[3] Those addresses are as follows:
0xD4B88Df4D29F5CedD6857912842cff3b20C8Cfa3
0xFD8610d20aA15b7B2E3Be39B396a1bC3516c7144
0x07687e702b410Fa43f4cB4Af7FA097918ffD2730
0x23773E65ed146A459791799d01336DB287f25334
0x4736dCf1b7A3d580672CcE6E7c65cd5cc9cFBa9D
0xd96f2B1c14Db8458374d9Aca76E26c3D18364307
0x0836222F2B2B24A3F36f98668Ed8F0B38D1a872f
0x169AD27A470D064DEDE56a2D3ff727986b15D52B
0x178169B423a011fff22B9e3F3abeA13414dDD0F1
0x610B717796ad172B316836AC95a2ffad065CeaB4
0xbB93e510BbCD0B7beb5A853875f9eC60275CF498.

[4] Those addresses are as follows:
0x22aaA7720ddd5388A3c0A3333430953C68f1849b
0xBA214C1c1928a32Bffe790263E38B4Af9bFCD659
0x03893a7c7463AE47D46bc7f091665f1893656003
0x2717c5e28cf931547B621a5dddb772Ab6A35B701
0xD21be7248e0197Ee08E0c20D4a96DEBdaC3D20Af.

56. Four of the addresses designated by OFAC are smart contracts that govern optional features of Tornado Cash.[5] Those contracts maintain a list of pools, record a list of transactions, and provide optional services for Tornado Cash users. Upon information and belief, some were in use as of August 8, 2022, while others were not.

57. Twelve of the addresses designated by OFAC are smart contracts that, upon information and belief, are obsolete or were never used.[6]

58. Two of the addresses designated by OFAC accept donations to fund the development and maintenance of Tornado Cash. One address (0xDD4c48C0B24039969fC16D1cdF626eaB821d3384) is a smart contract. The other address (0x8589427373D6D84E98730D7795D8f6f8731FDA16) appears to be controlled by a user not identified or designated by OFAC.

THE CONSEQUENCES OF DEFENDANTS' DESIGNATION

59. When a person is identified on the SDN List, United States persons are generally prohibited, on pain of criminal and civil penalties, from doing business or engaging in financial

[5] Those addresses are as follows:
0x527653eA119F3E6a1F5BD18fbF4714081D7B31ce
0x58E8dCC13BE9780fC42E8723D8EaD4CF46943dF2
0xCa0840578f57fE71599D29375e16783424023357
0xd90e2f925DA726b50C4Ed8D0Fb90Ad053324F31b.

[6] Those addresses are as follows:
0xF60dD140cFf0706bAE9Cd734Ac3ae76AD9eBC32A
0xb1C8094B234DcE6e03f10a5b673c1d8C69739A00
0x1356c899D8C9467C7f71C195612F8A395aBf2f0a
0xA60C772958a3eD56c1F15dD055bA37AC8e523a0D
0xaEaaC358560e11f52454D997AAFF2c5731B6f8a6
0xD691F27f38B395864Ea86CfC7253969B409c362d
0x9AD122c22B14202B4490eDAf288FDb3C7cb3ff5E
0xF67721A2D8F736E75a49FdD7FAd2e31D8676542a
0x722122dF12D4e14e13Ac3b6895a86e84145b6967
0x905b63Fff465B9fFBF41DeA908CEb12478ec7601
0x94A1B5CdB22c43faab4AbEb5c74999895464Ddaf
0xb541fc07bC7619fD4062A54d96268525cBC6FfEF

transactions in which the designated person has a property interest. This prohibition prevents United States persons, including United States financial institutions, from providing funds, goods, or services to the designated person, including opening or maintaining an account for a designated person or processing transactions involving the designated person. Additionally, United States persons, including United States financial institutions, are required to block any property or interests in property of that designated person, and are required to report any such blocked property in their possession or control to OFAC. *See* 31 C.F.R. § 578.201(a), (b); *see* 87 Fed. Reg. 54,373 (Sept. 6, 2022) (amending OFAC's Cyber-Related Sanctions Regulations).

60. OFAC has recognized that "most virtual currency activity is licit." *See U.S. Treasury Issues First-Ever Sanctions on a Virtual Currency Mixer, Targets DPRK Cyber Threats*, OFAC (May 6, 2022) <home.treasury.gov/news/press-releases/jy0768>.

61. Nevertheless, as a result of the August 8 designation, no Ethereum user subject to U.S. jurisdiction can lawfully use the Tornado Cash privacy protocol for any purpose without fear of serious consequences as a result of government enforcement. Plaintiffs and other law-abiding citizens are prohibited from depositing, withdrawing, sending, or receiving funds through Tornado Cash, even when the funds have no connection to illicit activity.

62. What is more, because Tornado Cash consists of open-source, self-executing code, it is still operational. The fact that no intermediary is necessary for Tornado Cash to operate means that United States persons with public Ethereum wallet addresses may receive unsolicited crypto assets sent through Tornado Cash.

63. Without an injunction, the designation will prevent Plaintiffs and others who are similarly situated from using the Tornado Cash protocol. Because OFAC's designation does not expire, United States persons who had funds in Tornado Cash pools at the time of Tornado Cash's

designation are indefinitely prohibited from lawfully accessing those funds. Ethereum users will be forced to choose between transacting without the privacy benefits of Tornado Cash and foregoing the opportunity to engage in potentially valuable personal and business transactions.

64. The ongoing harms are immediately redressable by an injunction. An order to remove these addresses from the SDN List would allow Plaintiffs to conduct their legitimate business activities with some measure of anonymity, use their preferred software tool without fear of penalties, and retrieve their locked funds from the Tornado Cash smart contracts.

65. An injunction would also serve the public interest by averting harm to Tornado Cash users who are United States persons, the broader Ethereum network, and the important sector of the economy that depends on the Ethereum network.

COUNT I
(ALL PLAINTIFFS)

Administrative Procedure Act
(5 U.S.C. § 706(2)(A), (C))

66. Plaintiffs incorporate by reference the factual allegations in ¶¶ 1-65.

67. Defendants have authority under IEEPA to regulate certain activities involving "any property in which any foreign country or a national thereof has any interest by any person, or with respect to any property, subject to the jurisdiction of the United States." 50 U.S.C. § 1702(a)(1)(B).

68. Tornado Cash is not "property," a "foreign country or a national thereof," or a "person" of any kind under IEEPA.

69. Defendants' designation is therefore "not in accordance with law" and "in excess of statutory jurisdiction, authority, or limitations" under the APA. 5 U.S.C. § 706(2)(A), (C).

COUNT II
(ALL PLAINTIFFS)

First Amendment to the United States Constitution and Administrative Procedure Act (Freedom of Speech)
(5 U.S.C. § 706(2)(A), (B))

70. Plaintiffs incorporate by reference the factual allegations in ¶¶ 1-69.

71. Defendants' action prohibits Plaintiffs from engaging in speech protected by the First Amendment to the Constitution. By providing a certain degree of privacy, Tornado Cash allows Plaintiffs to engage in important, socially valuable speech. As a result of the designation, Plaintiffs are unable to use Tornado Cash to make donations to support important, and potentially controversial, political and social causes. Plaintiffs are also unable to develop code related to Tornado Cash to facilitate improved uses of Tornado Cash and the Ethereum network. And Plaintiffs are unable to use Tornado Cash to develop future business ventures, which themselves will engage in socially valuable speech.

72. Defendants' action also prohibits many others from engaging in similarly important, valuable, protected speech. That speech includes donations to important, and potentially controversial, political and social matters; software code; and speech in connection with commercial activities funded by crypto assets sent through Tornado Cash. Because Tornado Cash is frequently used for those lawful purposes, Defendants' action "prohibits a substantial amount of protected speech . . . relative to the . . . plainly legitimate sweep" of Defendants' action. *United States* v. *Williams*, 553 U.S. 285, 292 (2008).

73. For all of those reasons, Defendants' designation is "not in accordance with law" and "contrary to constitutional right" under the APA. 5 U.S.C. § 706(2)(A), (B).

COUNT III
(PLAINTIFFS TYLER ALMEIDA, PRESTON VAN LOON, AND NATE WELCH)

Fifth Amendment to the United States Constitution and Administrative Procedure Act
(Due Process)
(5 U.S.C. § 706(2)(A), (B))

74. Plaintiffs incorporate by reference the factual allegations in ¶¶ 1-73.

75. As a result of Defendants' action, Plaintiffs Tyler Almeida, Preston Van Loon, and Nate Welch are unable to access Ether that belongs to them because it is trapped in a Tornado Cash pool. That Ether is their property.

76. Mr. Almeida, Mr. Van Loon, and Mr. Welch did not receive any process prior to that deprivation of their property, let alone due process of law.

77. The denial of any pre-deprivation process whatsoever is unjustified by any national security interests, and the risk of erroneous deprivation of property from Defendants' action is intolerably high under the Fifth Amendment to the U.S. Constitution.

78. Defendants' designation is therefore "not in accordance with law" and "contrary to constitutional right" under the APA. 5 U.S.C. § 706(2)(A), (B).

PRAYER FOR RELIEF

Plaintiffs respectfully pray that this Court enter an order and judgment:

1. Declaring that Defendants' designation is null, void, and with no force and effect;

2. Declaring that Defendants' designation is not in accordance with law within the meaning of 5 U.S.C. § 706(2)(A); contrary to constitutional right within the meaning of 5 U.S.C. § 706(2)(B); and in excess of statutory jurisdiction, authority, or limitations within the meaning of 5 U.S.C. § 706(2)(C);

3. Vacating and setting aside the designation;

4. Permanently enjoining Defendants and their officers, employees, and agents from enforcing, implementing, applying, or taking any action whatsoever under, or in reliance on, the designation;

5. Awarding Plaintiffs the costs of this litigation, including reasonable attorney's fees; and

6. Such other and further relief as this Court may deem just and proper.

Dated: September 8, 2022

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