S1 List of lakes/reservoirs used for the correction RECOG-LR RL01

Aberdeen LakeCanada1128.2Achit LakeMongolia296.2Acude Oros ReservoirBrazil61.3Albert LakeUganda5401.9Alcantara ReservoirUnited States14.4Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada303.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badgiós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeKazakhstan1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkna StakeCameroon163.9Baran ReservoirIndia46.6Berryessa LakeUnited States66.6Beryessa LakeUnited States66.6Beryessa LakeUnited States80.5Buenos Aires LakeChina99.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States60.6Beryessa LakeUnited States60.6Beryessa LakeUnited States60.5Buenos Aires LakeChina99.5Bratskoe Rese	Lake	Country	Surface area [km ²]
Achit LakeMongolia296.2Acude Oros ReservoirBrazil61.3Albert LakeUganda5401.9Alcantara ReservoirSpain45.3Allegheny ReservoirUnited States14.4Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada3033.7Angostura LakeMexico566.3Apoquitau LakeBrazil125.9Aqqikkol LakeArgentina1401.9Argyel LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badjós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balton LakeHungary578.2Balbina ReservoirBrazil2304.8Bangweulu LakeZambia2049.1Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beryessa LakeUnited States80.5Buchanan LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina99.5Bratskoe ReservoirRussia4810.8Burdekin ReservoirAustralia210.5Burda KakeChina99.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States<	Aberdeen Lake	Canada	1128.2
Acude Oros ReservoirBrazil61.3Albert LakeUganda5401.9Alcantara ReservoirSpain45.3Allegheny ReservoirUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada303.7Angostura LakeMexico566.3Apoquitau LakeBrazil125.9Aqgikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Attirk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2049.1Bankin LakeCameroon163.9Baran ReservoirIndia46.6Beryessa LakeUnited States66.6Beysehir LakeChina999.5Bratkoc ReservoirRussia4810.8Buchanan LakeUnited States60.6Beysehir LakeChina999.5Bratkoc ReservoirIndia59.4Boston LakeChina999.5Bratkoc ReservoirRussia4810.8Buchanan LakeUnited States60.6Beysehir LakeChina999.5Gishapur ReservoirIndia59.4	Achit Lake	Mongolia	296.2
Albert LakeUganda5401.9Alcantara ReservoirSpain45.3Allegheny ReservoirUnited States41.4Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada3033.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badgós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2049.1Bankin LakeKazakhstan17458.8Bangwelu LakeZambia2049.1Bankim LakeCameroon163.9Baran ReservoirIndia46.6Beryessa LakeUnited States665.6Bisalpur ReservoirRussia4810.8Buchanan LakeUnited States60.3Buchanan LakeUnited States60.3Buchanan LakeUnited States60.3Buchanan LakeUnited States60.3Buchanan LakeUnited States60.3Buchanan LakeUnited States60.3Cadobassa Lake	Acude Oros Reservoir	Brazil	61.3
Alcantara ReservoirSpain45.3Allegheny ReservoirUnited States11.4Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada3033.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Asad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Beryessa LakeUnited States66.6Beryessa LakeUnited States65.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoc ReservoirRussia481.08Buchanan LakeUnited States80.5Buenos Aires LakeChina99.5Bratskoc ReservoirAustralia210.5Buyo LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Basa LakeChina394.5Boton LakeEthiopia <td>Albert Lake</td> <td>Uganda</td> <td>5401.9</td>	Albert Lake	Uganda	5401.9
Allegheny ReservoirUnited States41.4Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada3033.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Attirk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2049.1Bahnim LakeCameroon163.9Barna ReservoirIndia46.6Beryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia99.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cadabassa LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States60.3	Alcantara Reservoir	Spain	45.3
Almanor LakeUnited States104.6Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada303.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Bagre ReservoirBrazil2304.8Balshash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Barkin LakeUnited States66.6Beryressa LakeUnited States659.6Bisalpur ReservoirIndia45.6Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirRussia4810.8Buchanan LakeUnited States60.3Canda LakeBrazil205.1Caddoassa LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cadabassa LakeUnited States60.3Cahora Bassa Lake <td>Allegheny Reservoir</td> <td>United States</td> <td>41.4</td>	Allegheny Reservoir	United States	41.4
Alvaro Obregón ReservoirMexico74.8Amadjuak LakeCanada303.7Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beschir LakeChina999.5Bratskoe ReservoirIndia59.4Boston LakeUnited States80.5Bunchanan LakeUnited States80.5Buendanan LakeUnited States60.3Caddabassa LakeEthiopia91.6Caddabassa LakeKazakhstan37.4Boton LakeGrand27.7Cabaliana LakeBrazil205.1Cadabassa LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States16.3Caroyon Ferry Lake<	Almanor Lake	United States	104.6
Amadjuak LakeCanada3033.7Angostura LakeMexico566.3Apoquitau LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Attürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkah LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia59.4Boston LakeUnited States66.6Beryessa LakeUnited States80.5Buenos Aires LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States508.7Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Cadobassa LakeMozambique2047.5Cando LakeUnited States60.3Cadro Bassa LakeMozambique2047.5Cando LakeUnited States106.5Carey LakeCanada <td< td=""><td>Alvaro Obregón Reservoir</td><td>Mexico</td><td>74.8</td></td<>	Alvaro Obregón Reservoir	Mexico	74.8
Angostura LakeMexico566.3Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Attürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balton LakeHungary578.2Balbina ReservoirBrazil2304.8Bagweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Beryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddo LakeUnited States60.3Cadrona Bassa LakeUnited States160.3Cador Bassa LakeUnited States160.3Cador LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChand19346.6 <td>Amadjuak Lake</td> <td>Canada</td> <td>3033.7</td>	Amadjuak Lake	Canada	3033.7
Apoquitaua LakeBrazil125.9Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Baral2049.12049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabasa LakeEthiopia91.6Caddo LakeUnited States60.3Canon Bassa LakeUnited States60.3Canon Ferry LakeUnited States156.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Chad LakeChad19346.6Chana	Angostura Lake	Mexico	566.3
Aqqikkol LakeChina355.6Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beyschir LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buros Aires LakeChina999.5Bratskoe ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabdiana LakeBrazil205.1Caddabassa LakeBrazil205.1Caddabassa LakeMozambique2047.5Canyon Ferry LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Canyon Ferry LakeCanada247.9Caspian SeaKazakhstan378119.3ChadLakeCanada247.9Caspian Sea <td< td=""><td>Apoquitaua Lake</td><td>Brazil</td><td>125.9</td></td<>	Apoquitaua Lake	Brazil	125.9
Argentino LakeArgentina1401.9Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Byschir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeMozambique2047.5Canyon Ferry LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Chada LakeCanada247.9Caspian SeaKazakhstan378119.3Chada LakeChand <t< td=""><td>Aqqikkol Lake</td><td>China</td><td>355.6</td></t<>	Aqqikkol Lake	China	355.6
Argyle LakeAustralia829.2Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Bysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabilana LakeBrazil205.1Caddabassa LakeMozambique2047.5Canyon Ferry LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada287.9Caspian SeaKazakhstan378119.3Chad LakeCanada2817.3Chad LakeChado19346.6Chamo LakeEthiopia31.6Chamo LakeEthiopia324.8	Argentino Lake	Argentina	1401.9
Assad LakeSyria638.6Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beyschir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Cadda bassa LakeMozambique2047.5Canyon Ferry LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Caspian SeaKazakhstan378119.3Chad LakeChad19346.6Chamo LakeEthiopia324.6	Argyle Lake	Australia	829.2
Atatürk LakeTurkey695.1Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkan LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beyschir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States166.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChand19346.6Chano LakeEthiopia324.8	Assad Lake	Syria	638.6
Ayakkum LakeChina575.1Badajós LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkmash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bislapur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Atatürk Lake	Turkey	695.1
Badajos LakeBrazil227.4Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beyschir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeIvory Coast508.7Cabaliana LakeIvory Coast508.7Cabaliana LakeUnited States60.3Cahora Bassa LakeUnited States60.3Cahora Bassa LakeUnited States167.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada2817.3Chad LakeChad19346.6Chamo LakeEthiopia324.8	Ayakkum Lake	China	575.1
Bagre ReservoirBurkina Faso167.9Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beyschir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeUnited States60.3Caddabassa LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada2817.3Chad LakeChad19346.6Chamo LakeEthiopia324.8	Badajós Lake	Brazil	227.4
Baikal LakeRussia31924.6Baker LakeCanada1780.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Bysehir LakeTurkey659.6Bisalpur ReservoirIndia99.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Bagre Reservoir	Burkina Faso	167.9
Baker LakeCanada1/80.3Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Bysehir LakeTurkey659.6Bisalpur ReservoirIndia99.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Baikal Lake	Russia	31924.6
Balaton LakeHungary578.2Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada2817.3Chad LakeChad19346.6Chamo LakeEthiopia324.8	Baker Lake	Canada	1780.3
Balbina ReservoirBrazil2304.8Balkhash LakeKazakhstan17458.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada2817.3Chad LakeChad19346.6Chamo LakeEthiopia324.8	Balaton Lake	Hungary	578.2
Balkhash LakeKazakhstan1/438.8Bangweulu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeCanada2817.3Chad LakeChad19346.6Chamo LakeEthiopia324.8	Balbina Reservoir	Brazil	2304.8
Bangwellu LakeZambia2049.1Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Caryon Ferry LakeUnited States156.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Balknash Lake	Kazakhstan	1/458.8
Bankim LakeCameroon163.9Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Bangweulu Lake	Zambia	2049.1
Barna ReservoirIndia46.6Berryessa LakeUnited States66.6Beysehir LakeTurkey659.6Bisalpur ReservoirIndia59.4Boston LakeChina999.5Bratskoe ReservoirRussia4810.8Buchanan LakeUnited States80.5Buenos Aires LakeChile1848.2Burdekin ReservoirAustralia210.5Buyo LakeIvory Coast508.7Cabaliana LakeBrazil205.1Caddabassa LakeEthiopia91.6Caddo LakeUnited States60.3Cahora Bassa LakeMozambique2047.5Carey LakeCanada247.9Caspian SeaKazakhstan378119.3Cedar LakeChad19346.6Chamo LakeEthiopia324.8	Bankim Lake	Cameroon	163.9
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1 0	Chamo Lake	Ethiopia	324.8

Chandil Dam Reservoir	India	33.6
Chapala Lake	Mexico	1127.3
Chiquita Lake	Argentina	2011.9
Choke Canyon Reservoir	United States	55.1
Churumuco Lake	Mexico	288.0
Claire Lake	Canada	1325.6
Coari Lake	Brazil	646.2
Colville Lake	Canada	433.1
Constance Lake	Germany	516.0
Contwoyto Lake	Canada	1092.5
Cumberland Lake	United States	159.5
CW McConaughy Lake	United States	122.1
Dale Hollow Lake	United States	89.6
Dongting Lake	China	778.7
Dore Lake	Canada	634.4
Dubawnt Lake	Canada	3628.5
Edward Lake	Zaire	2252.5
Elwell Reservoir	United States	61.9
Encoro de Salas Reservoir	Portugal	16.0
Enriquillo Lake	Dominican Republ	259.5
Erepecu Lake	Brazil	628.2
Erie Lake	Canada	25691.0
Eucumbene Lake	Australia	121.4
Eufaula Reservoir	United States	354.9
Fehet Lake	Canada	105.7
Flathead Lake	United States	487.6
Flores Reservoir	Brazil	65.0
Forde Lake	Canada	303.0
Fort Peck Lake	United States	814.2
Francis Case Lake	United States	328.3
Gandhi Sagar Reservoir	India	521.7
Garry Lake	Canada	787.0
Geneva Lake	Switzerland	558.2
Govind Ballabh Pant Sagar Lake	India	415.3
Grande do Curuai Lake	Brazil	381.8
Grandin Lake	Canada	248.5
Grapevine Lake	United States	21.2
Great Bear Lake	Canada	30530.1
Great Salt Lake	United States	5965.8
Great Slave Lake	Canada	27816.3
Guarabi Lake	Brazil	196.0
Guri Lake	Venezuela	3661.0
Hardisty Lake	Canada	319.4
Harlan County Lake	United States	50.0
Harry S Truman Reservoir	United States	186.8
Hartwell Lake	United States	189.2
Hebgen Lake	United States	46.5
Hottah Lake	Canada	955.1
Hubbard Creek Reservoir	United States	43.1
Hulun Lake	China	2166.5

Huron Lake	Canada	59756.5
Hyargas Lake	Mongolia	1362.7
Ilha Solteira Reservoir	Brazil	1077.3
Ilmen Lake	Russia	951.2
Inder Lake	Kazakhstan	105.8
Issyk Kul Lake	Kyrgyzstan	6258.9
Itaparica Reservoir	Brazil	687.6
Itutinga Reservoir	Brazil	56.3
Izabal Lake	Guatemala	737.6
Jacarei Reservoir	Brazil	38.9
Jurumirim Reservoir	Brazil	373.5
Kabamba Lake	Zaire	178.6
Kabele Lake	Zaire	102.3
Kabwe Lake	Zaire	100.8
Kainji Lake	Nigeria	1034.8
Kajaki Reservoir	Afghanistan	46.1
Kamilukuak Lake	Canada	672.1
Kaminuriak Lake	Canada	565.4
Kapchagay Reservoir	Kazakhstan	1273.0
Kara Bogaz Gol Lake	Turkmenistan	918.9
Karakaya Baraji Reservoir	Turkey	194.9
Kariba Lake	Zimbabwe	5276.2
Keller Lake	Canada	390.7
Khantaiskoye Lake	Russia	1441.7
Khuvsgul Lake	Mongolia	2741.4
Kisale Lake	Zaire	277.8
Kivu Lake	Zaire	2370.7
Koosa järv Lake	Russia	3552.8
Kossou Lake	Ivory Coast	500.3
Krasnoyarskoye Reservoir	Russia	1629.6
Kremenchuk Reservoir	Ukraine	1849.1
Kusai Lake	China	255.7
Kuybyshev Reservoir	Russia	5003.3
Kyoga Lake	Uganda	1727.7
La Grande Reservoir	Canada	2572.6
Lac Changalele Reservoir	Congo (DRC)	179.6
Ladoga Lake	Russia	17539.1
Lagdo Lake	Cameroon	622.6
Lagoa da Funda Lake	Angola	23.1
Lake of the Woods	Canada	4167.7
Langa Co Lake	China	277.5
Lesser Slave Lake	Canada	1152.0
Llanquihue Lake	Chile	865.9
Loups Marins Lake	Canada	510.6
Luther Lake	Canada	59756.5
Mai Ndombe Lake	Zaire	1954.9
Maithan Dam Reservoir	India	76.1
Malawi Lake	Malawi	29251.5
Mallery Lake	Canada	444.7
Managua Lake	Nicaragua	1023.8

Manso Reservoir	Brazil	49.4
Marfil Lake	Bolivia	104.9
Massingir Lake	Mozambique	118.9
Maunoir Lake	Canada	341.8
Mead Lake	United States	581.0
Meredith Lake	United States	35.0
Michigan Lake	United States	57399.4
Mille Lacs Lake	United States	496.3
Mosul Dam Lake	Iraq	346.9
Murray Lake	United States	180.8
Musters Lake	Argentina	407.8
Mweru Mantipa Lake	Zambia	110.1
Mweru Lake	Zambia	4944.8
Nam Co Lake	China	1933.6
Nam Ngum Lake	Laos	443.8
Nasser Lake	Egypt	5383.3
Nettiling Lake	Canada	5064.7
Netzahualcóyotl Lake	Mexico	292.0
Ngangze Lake	China	411.3
Nicaragua Lake	Nicaragua	7851.5
Nipigon Lake	Canada	4476.9
Norfolk Lake	United States	79.4
Nova Ponte Reservoir	Brazil	237.3
Novosibirsk Reservoir	Russia	1024.2
Nowleye Lake	Canada	275.3
Nueltin Lake	Canada	2011.9
Nzilo Reservoir	Zaire	266.7
O. H. Ivie Reservoir	United States	47.1
Oahe Lake	United States	1092.6
Okeechobee Lake	United States	1436.8
Onega Lake	Russia	9773.9
Ontario Lake	Canada	19328.9
Oro Lake	Mali	110.3
Panchet Dam Reservoir	India	47.9
Peipus Lake	Russia	3552.8
Pires Ferreira Reservoir	Brazil	45.0
Poço da Cruz Reservoir	Brazil	3.0
Poopó Lake	Bolivia	1262.9
Pórisvatn Lake	Iceland	66.4
Powell Lake	United States	647.8
Poyang Lake	China	2108.1
Qadisiyah Lake	Iraq	339.2
Qarun Lake	Egypt	232.7
Qinghai Lake	China	4449.7
Rajghat Reservoir	India	46.7
Ramganga Reservoir	India	47.2
Ranco Lake	Chile	441.9
Rathbun Lake	United States	50.6
Ray Roberts Reservoir	United States	68.7
Razazza Lake	Iraq	1330.3

Reindeer Lake	Canada	5596.6
Richland Chambers Reservoir	United States	156.5
Robert Bourassa Reservoir	Canada	3107.6
Rockinghorse Lake	Canada	221.5
Roseires Reservoir	Sudan	225.2
Rukwa Lake	Tanzania	1965.8
Rweru Lake	Burundi	102.4
Rybinsk Reservoir	Russia	3926.6
Saint Jean Lake	Canada	1106.2
Sakakawea Lake	United States	1126.8
Salton Sea	United States	929.0
Sam Rayburn Reservoir	United States	380.1
Sao Geronimo Lake	Brazil	104.7
Saratovsk Reservoir	Russia	1073.4
Sarygamysh Lake	Turkmenistan	752.4
Schultz Lake	Canada	418.0
Selingue Reservoir	Mali	335.7
Seminoe Reservoir	United States	57.2
Serra de Mesa Reservoir	Brazil	922.7
Sevan Lake	Armenia	1249.9
Shadehill Reservoir	United States	17.2
Shala Lake	Ethiopia	310.5
Siling Co Lake	China	1640.9
Sobradinho Reservoir	Brazil	2614.9
Songhua Lake	China	193.3
South Henrik Lake	Canada	569.6
Stockton Lake	United States	96.4
Strom Thurmond Lake	United States	131.4
Sudd Swamps	Sudan	161.3
Superior Lake	Canada	81935.7
Table Rock Lake	United States	118.1
Tai Hu Lake	China	2398.5
Takijuq Lake	Canada	1013.9
Tana Lake	Ethiopia	3034.7
Tanganyika Lake	Zaire	32820.5
Tangra Yumco Lake	China	828.2
Tarbela Reservoir	Pakistan	208.4
Taupo Lake	New Zealand	600.5
Tawakoni Lake	United States	137.7
Tebesjuak Lake	Canada	488.6
Tehek Lake	Canada	491.1
Tengiz Lake	Kazakhstan	1382.6
Teshekpuk Lake	United States	834.9
Tharthar Lake	Iraq	1698.8
Titicaca Lake	Peru	8270.6
Toba Lake	Indonesia	1133.8
Todos los Santos Lake	Chile	175.6
Toktogul Reservoir	Kyrgyzstan	223.5
Toledo Bend Reservoir	United States	599.6
Tres Irmaos Reservoir	Brazil	591.8

Tschida Lake	United States	10.4
Tshchikskoye Lake	Russia	269.2
Tsimlyansk Reservoir	Russia	2242.4
Tucurui Reservoir	Brazil	2349.1
Tulemalu Lake	Canada	656.8
Tumba Lake	Zaire	697.0
Turkana Lake	Kenya	7785.4
Ubinskoye Lake	Russia	433.3
Ukai Reservoir	India	370.2
Ulungur Lake	China	757.5
Unknown Reservoir	India	30.0
Unknown Reservoir	Mexico	134.9
Unknown Target	Mexico	141.4
Upemba Lake	Zaire	573.0
Urmia Lake	Iran	4963.4
Urua Lake	Brazil	196.0
Uvs Lake	Mongolia	3421.5
Van Lake	Turkey	3537.9
Vänern Lake	Sweden	5550.5
Vani Vilasa Sagara Reservoir	India	39.3
Victoria Lake	Tanzania	67075.2
Viedma Lake	Argentina	1047.4
Volta Lake	Ghana	6043.9
Walker Lake	United States	165.5
Wharton Lake	Canada	407.1
Williston Lake	Canada	1654.0
Winnipegosis Lake	Canada	5167.1
Wollaston Lake	Canada	2272.0
Yathkyed Lake	Canada	1320.4
Yellowstone Lake	United States	327.8
Zanzulu Reservoir	Angola	123.1
Zaysan Lake	Kazakhstan	4193.7
Zeyskoye Reservoir	Russia	2234.8
Zhari Namco Lake	China	1004.4
Zimbambo Lake	Zaire	204.7
Ziway Lake	Ethiopia	410.5
Zujar Reservoir	Spain	93.1

S2 Additional figures



Figure S1: Estimated maximum extent of four lakes with comparison to the HydroLAKES dataset. Examples show the correction of overestimation (top) and underestimation (bottom) of surface water extent by a static approximation (blue). The red GWP shapes are the final shapes used for RECOG-LR. (Background: Bing Maps, © Microsoft)



Figure S2: Monthly correction results for February (top left), May (top right), August (bottom left) and November (bottom right) of 2010. Note that for better visibility of the smaller lakes, the very strong signals (e.g. for the Caspian Sea and the Great Lakes) go beyond the scale of +- 5 cm.



Figure S3: Time series of Great Lakes in North America from the DAHITI database.

Sumatra-Andaman earthquake 2004



Figure S4: Comparison of linear trends (01/2003 – 12/2016) of the earthquake correction (left), the original (middle) and corrected TWS changes (right) in cm EWH/year for the different GRACE solutions ITSG-Grace2018 (top), GFZ-RL06 (middle) and CSR-RL06 (bottom) of the Sumatra-Andaman earthquake from 2004.

Tohoku earthquake 2011



Figure S5: Comparison of linear trends (01/2003 – 12/2016) of the earthquake correction (left), the original (middle) and corrected TWS changes (right) in cm EWH/year for the different GRACE solutions ITSG-Grace2018 (top), GFZ-RL06 (middle) and CSR-RL06 (bottom) of the Tohoku earthquake from 2011.

Figures S4 and S5 show the comparison of the linear trends for the correction, the original and corrected total water storage changes for different GRACE solutions. The ITSG-Grace2018 solution is discussed in more detail in the paper, but the main findings describe that the linear trends in the Sumatra-Andaman regions and the Tohoku region are biased by the earthquake signal. For the Sumatra-Andaman region this led to a medium change in magnitude and spatial pattern, while in Tohoku large differences between the uncorrected and corrected GRACE signal appeared. The linear trends were very close to zero after correcting the GRACE data. The GFZ-RL06 and CSR-RL06 solutions show now that very similar linear trends can be observed when comparing the original data, regardless of the earthquake considered. The earthquake correction can continue these findings. Each solution is in the same magnitude and identifies equal regions that are affected. Therefore, it is very important to correct the GRACE data for earthquakes to avoid misinterpretations in hydrological applications. We provide the earthquake correction RECOG-EQ for all three solutions on Pangaea as described in the paper.



Figure S6: GRACE TWSA at the chosen grid that is closest to the epicenter of the (a) Sumatra-Andaman earthquake in 2004 (epicenter location: 3.32° N, 95.85° E, closest to TWSA grid location: 3.25° N, 95.75° E) and the (b) Tohoku earthquake in 2011 (epicenter location: 38.32° N, 142.37° E, closest to TWSA grid location: 38.25° N, 142.25° E) shown for the original (black) and the corrected (blue) GRACE total water storage anomalies earthquake correction.

Figure S6 shows the time series for the GRACE at the closest location to the epicenters for the Sumatra-Andaman earthquake in 2004 and the Tohoku earthquake in 2011. For Sumatra-Andaman the location with 97.75 degrees east and 3.25 degrees north is chosen. The correction (red) shows a clear visible step function, but less influence of a post-seismic relaxation. It is important to understand that the earthquake correction models are fitted to the geoid or gravity anomalies in the space domain, i.e. to gridded representations. Transforming from geoid to TWSA requires spatial smoothing operations such that the temporal evolution of individual grid corrections are overlaid. As a result one cannot expect to see the original relaxation effect as clearly as e.g. in Einarsson et al. (2009).



Water storage time series in Mississippi subbasins

Figure S7: TWSA time series for GRACE (orange), OLS (green), DA of original GRACE (black), DA of GRACE + lakes/reservoirs removed (red) and DA of GRACE + lakes/reservoirs removed and relocated (blue) in the remaining three Mississippi subbasins Hermann (top), Metropolis (middle) and Vicksburg (Bottom).