## Appendix E – List of Closed Cities, Paired Adjacent Cities, and Paired Similar Cities

TABLE E.1: CLOSED CITIES AND THEIR ADJACENT CITIES

aity namo	closed_city	pair_city
city_name	closed_city	pan_city
Pervomayskiy raion	1	Sibirsky
Tal'menskiy raion	0	Sibirsky
Zalesovskiy raion	0	Sibirsky
Zarinskiy raion	0	Sibirsky
Kosikhinskiy raion	0	Sibirsky
Troitskiy raion	0	Sibirsky
Topchikhinskiy raion	0	Sibirsky
Kalmanskiy raion	0	Sibirsky
Barnaul gorsovet	0	Sibirsky
Plesetskiy raion	1	Mirny
Primorskiy raion	0	Mirny
Kholmogorskiy raion	0	Mirny
Vinogradovskiy raion	0	Mirny
Shenkurskiy raion	0	Mirny
Nyandomskiy raion	0	Mirny
Kargopol'skiy raion	0	Mirny
Pudozhskiy raion	0	Mirny
Onezhskiy raion	0	Mirny
Severodvinsk	1	Severodvinsk
Primorskiy raion	0	Severodvinsk

Akhtubinskiy raion	1	Znamensk
Leninskiy raion	0	Znamensk
Chernoyarskiy raion	0	Znamensk
Enotaevskiy raion	0	Znamensk
Kharabalinskiy raion	0	Znamensk
Pallasovskiy raion	0	Znamensk
Beloretskiy raion	1	Mezhgorye
Katav-Ivanovskiy raion	0	Mezhgorye
Ashinskiy raion	0	Mezhgorye
Arkhangel'skiy raion	0	Mezhgorye
Gafuriyskiy raion	0	Mezhgorye
Ishimbayskiy raion	0	Mezhgorye
Burzyanskiy raion	0	Mezhgorye
Abzelilovskiy raion	0	Mezhgorye
Uchalinskiy raion	0	Mezhgorye
Kaslinskiy raion	1	Snezhinsk
Kamenskiy raion	0	Snezhinsk
Kunashakskiy raion	0	Snezhinsk
Argayashskiy raion	0	Snezhinsk
Verkhniy Ufaley gorsovet	0	Snezhinsk
Sysertskiy raion	0	Snezhinsk
Katav-Ivanovskiy raion	1	Tryokhgorny
Ashinskiy raion	0	Tryokhgorny

Salavatskiy raion	0	Tryokhgorny
Ust'-Katav gorsovet	0	Tryokhgorny
Satkinskiy raion	0	Tryokhgorny
Kyshtym gorsovet	1	Ozyorsk
Verkhniy Ufaley gorsovet	0	Ozyorsk
Verkhniy Ufaley gorsovet	0	Ozyorsk
Karabash gorsovet	0	Ozyorsk
Argayashskiy raion	0	Ozyorsk
Svetlogorsk	1	Baltiysk
Gur'evskiy raion	0	Baltiysk
Elizovskiy raion	1	Vilyuchinsk
Ust'-Bol'sheretskiy raion	0	Vilyuchinsk
Sobolevskiy raion	0	Vilyuchinsk
Mil'kovskiy raion	0	Vilyuchinsk
Ust'-Kamchatskiy raion	0	Vilyuchinsk
Berezovskiy raion	1	Zheleznogorsk
Sukhobuzimskiy raion	0	Zheleznogorsk
Uyarskiy raion	0	Zheleznogorsk
Manskiy raion	0	Zheleznogorsk
Balakhtinskiy raion	0	Zheleznogorsk
Emel'yanovskiy raion	0	Zheleznogorsk
Rybinskiy raion	1	Zelenogorsk
Kanskiy raion	0	Zelenogorsk

Irbeyskiy raion	0	Zelenogorsk
Sayanskiy raion	0	Zelenogorsk
Partizanskiy raion	0	Zelenogorsk
Uyarskiy raion	0	Zelenogorsk
Sukhobuzimskiy raion	0	Zelenogorsk
Krasnoznamensk	1	Krasnoznamensk
Odintsovskiy raion	0	Krasnoznamensk
Naro-Fominskiy raion	0	Krasnoznamensk
Vlasikha	1	Vlasikha
Odintsovskiy raion	0	Vlasikha
Protvino	1	Protvino
Zhukovskiy raion	0	Protvino
Serpukhovskiy raion	0	Protvino
Zaokskiy raion	0	Protvino
Tarusskiy raion	0	Protvino
Polyarnye gorsovet	1	Alexandrovsk
Murmansk gorod	0	Alexandrovsk
Kol'skiy raion	0	Alexandrovsk
Severomorsk gorsovet	1	Severomorsk
Kol'skiy raion	0	Severomorsk
Murmansk gorod	0	Severomorsk
Levozerskiy raion	0	Severomorsk
Diveevskiy raion	1	Sarov

Temnikovskiy raion	0	Sarov
Voznesenskiy raion	0	Sarov
Ardatovskiy raion	0	Sarov
Arzamasskiy raion	0	Sarov
Shatkovskiy raion	0	Sarov
Pervomayskiy raion	0	Sarov
Temnikovskiy raion	0	Sarov
Novosibirskiy raion	1	Koltsovo
Moshkovskiy raion	0	Koltsovo
Kolyvanovskiy raion	0	Koltsovo
Toguchinskiy raion	0	Koltsovo
Iskitimskiy raion	0	Koltsovo
Kochenevskiy raion	0	Ozyorsk
Ordynskiy raion	0	Koltsovo
Bessonovskiy raion	1	Zarechny
Luninskiy raion	0	Zarechny
Gorodishchenskiy raion	0	Zarechny
Shemysheyskiy raion	0	Zarechny
Penzenskiy raion	0	Zarechny
Mokshanskiy raion	0	Zarechny
Shkotovskiy raion	1	Bolshoy Kamen/Fokino
Artem gorsovet	0	Bolshoy Kamen/Fokino
Ussuriyskiy raion	0	Bolshoy Kamen/Fokino

Mikhaylovskiy raion	0	Bolshoy Kamen/Fokino
Anuchinskiy raion	0	Bolshoy Kamen/Fokino
Partizansk gorsovet	0	Bolshoy Kamen/Fokino
Partizanskiy raion	0	Bolshoy Kamen/Fokino
Nakhodka gorsovet	0	Bolshoy Kamen/Fokino
Lermontov	1	Lermontov
Predgornyy raion	0	Lermontov
Mineralovodskiy raion	0	Lermontov
Nev'yanskiy raion	1	Novouralsk
Verkhnyaya Pyshma gorsovet	0	Novouralsk
Pervoural'sk gorsovet	0	Novouralsk
Kirovgrad gorsovet	0	Novouralsk
Prigorodnyy raion	0	Novouralsk
Rezhevskiy raion	0	Novouralsk
Nizhniy Tura gorsovet	1	Lesnoy
Novolyalinskiy raion	0	Lesnoy
Verkhoturskiy raion	0	Lesnoy
Kushva gorsovet	0	Lesnoy
Krasnoural'sk gorsovet	0	Lesnoy
Kachkanar gorsovet	0	Lesnoy
Gornozavodskiy raion	0	Lesnoy
Tomskiy raion	1	Seversk
Asinovskiy raion	0	Seversk

Zyryanskiy raion	0	Seversk
Yayskiy raion	0	Seversk
Yashkinskiy raion	0	Seversk
Bolotninskiy raion	0	Seversk
Kozhevnikovskiy raion	0	Seversk
Shegarskiy raion	0	Seversk
Krivosheinskiy raion	0	Seversk
Suzdal'skiy raion	1	Raduzhny
Sobinskiy raion	0	Raduzhny
Yur'ev-Pol'skiy raion	0	Raduzhny
Gavrilovo-Posadskiy raion	0	Raduzhny
Teykovskiy raion	0	Raduzhny
Lezhnevskiy raion	0	Raduzhny
Kameshkovskiy raion	0	Raduzhny
	1	

TABLE E.2: CLOSED CITIES AND THEIR ADJACENT CITIES

city_name	closed_city	pair_city
Protvino	1	Protvino
Serpukhov	0	Protvino
Pushchino	0	Protvino
Obninsk	0	Protvino
Mozhaysk	0	Protvino
Lermontov	1	Lermontov

Pyatigorsk	0	Lermontov
Essentuki	0	Lermontov
Zheleznovodsk	0	Lermontov
Mineral'nye Vody	0	Lermontov
Shkotovskiy raion	1	Bolshoy Kamen
Partizanskiy raion	0	Bolshoy Kamen
Severodvinsk	1	Severodvinsk
Novodvinsk	0	Severodvinsk
Arkhangel'sk	0	Severodvinsk
Severomorsk gorsovet	1	Severomorsk
Pechengskiy raion	0	Severomorsk
Novosibirskiy raion	1	Koltsovo
Novokuznetskiy	0	Koltsovo
Kemerovskiy raion	0	Koltsovo
Pervomayskiy raion	1	Sibirsky
Zarinskiy raion	0	Sibirsky
Tal'menskiy raion	0	Sibirsky
Iskitimskiy raion	0	Sibirsky
Krasnoznamensk	1	Krasnoznamensk
Krasnogorsk	0	Krasnoznamensk
Solnechnogorsk	0	Krasnoznamensk
Istra	0	Krasnoznamensk
Troitsk/Moskva	0	Krasnoznamensk

Vlasikha	1	Vlasikha
Krasnogorsk	0	Vlasikha
Solnechnogorsk	0	Vlasikha
Istra	0	Vlasikha
Troitsk/Moskva	0	Vlasikha
Berezovskiy raion	1	Zheleznogorsk
Emel'yanovskiy raion	0	Zheleznogorsk
Kanskiy raion	0	Zheleznogorsk
Suzdal'skiy raion	1	Raduzhny
Sobinskiy raion	0	Raduzhny
Ivanovskiy raion	0	Raduzhny
Muromskiy raion	0	Raduzhny
Kostromskoy raion	0	Raduzhny
Beloretskiy raion	1	Mezhgorye
Baymakskiy raion	0	Mezhgorye
Burzyanskiy raion	0	Mezhgorye
Elizovskiy raion	1	Vilyuchinsk
Ust'-Kamchatskiy raion	0	Vilyuchinsk
Karaginskiy raion	0	Vilyuchinsk
Olyutorskiy raion	0	Vilyuchinsk
Polyarnye gorsovet	1	Alexandrovsk
Pechengskiy raion	0	Alexandrovsk
Kaslinskiy raion	1	Snezhinsk

Kunashakskiy raion	0	Snezhinsk
Argayashskiy raion	0	Snezhinsk
Chebarkul'skiy raion	0	Snezhinsk
Akhtubinskiy raion	1	Znamensk
Kharabalinskiy raion	0	Znamensk
Pallasovskiy raion	0	Znamensk
Bessonovskiy raion	1	Zarechny
Penzenskiy raion	0	Zarechny
Diveevskiy raion	1	Sarov
Arzamasskiy raion	0	Sarov
Pervomayskiy raion	0	Sarov
Ardatovskiy raion	0	Sarov
Nizhniy Tura gorsovet	1	Lesnoy
Kushva gorsovet	0	Lesnoy
Plesetskiy raion	1	Mirny
Konoshskiy raion	0	Mirny
Nyandomskiy raion	0	Mirny
Nyandomskiy raion	0	Mirny
Svetlogorsk	1	Baltiysk
Bagrationovskiy raion	0	Baltiysk
Kyshtym gorsovet	1	Ozyorsk
Miass gorsovet	0	Ozyorsk

Verkhniy Ufaley	0	Ozyorsk
gorsovet		
Katav-Ivanovskiy raion	1	Tryokhgorny
Zlatoust gorsovet	0	Tryokhgorny
Satkinskiy raion	0	Tryokhgorny
Tomskiy raion	1	Seversk
Kemerovskiy raion	0	Seversk
Novokuznetskiy	0	Seversk
Nev'yanskiy raion	1	Novouralsk
Pervoural'sk gorsovet	0	Novouralsk
Kushva gorsovet	0	Novouralsk
Rybinskiy raion	1	Zelenogorsk
Kanskiy raion	0	Zelenogorsk

Table E.3: The list of Ukrainian Closed Cities and Their Adjacent Cities

city_name	closed_city	pair_city
Uzyn	1	Bilotserkivs'kyi
Tarashchans'kyi	0	Bilotserkivs'kyi
Rokytnians'kyi	0	Bilotserkivs'kyi
Kaharlyts'kyi	0	Bilotserkivs'kyi
Obukhivs'kyi	0	Bilotserkivs'kyi
Vasyl'kivs'kyi	0	Bilotserkivs'kyi
Fastivs'kyi	0	Bilotserkivs'kyi

0	Bilotserkivs'kyi
0	Bilotserkivs'kyi
0	Bilotserkivs'kyi
1	Zhovtovods'ka
0	Zhovtovods'ka
0	Zhovtovods'ka
1	Umans'ka
0	Umans'ka
1	Pervomais'kyi
0	Pervomais'kyi
1	Kamianets'-
	Podil's'ka
0	Kamianets'-
	Podil's'kyi
	0 0 1 0 0 1 0 1 0 0 0

Table E.4: The list of Ukrainian Closed Cities and Their Similar Cities

city_name	closed_city	pair_city
Uzyn	1	Bilotserkivs'kyi
Fastivs'kyi	0	Bilotserkivs'kyi

Zhovti Vody	1	Zhovtovods'ka
Ordzhonikidzevs'ka	0	Zhovtovods'ka
Uman	1	Umans'ka
Vinnyts'ka	0	Umans'ka
Pervomais'ka	0	Umans'ka
Pervomaisk	1	Pervomais'kyi
Rozdol'nens'kyi	0	Pervomais'kyi
Bilohirs'kyi	0	Pervomais'kyi
Kamianets-Podilskyi	1	Kamianets'-Podil's'ka
Khmel'nyts'ka	0	Khmel'nyts'ka