

Second Urban Infrastructure Project (UIP2), Ukraine

ABBREVIATED RESETTLEMENT ACTION PLAN

for:

**Zhytomyrvodokanal Utility
Vinnytsyaoblvodokanal Utility
Ternopilvodokanal Utility
Kolomyiavodokanal Utility
Cherkasyvodokanal Utility
Novovolynskvodokanal Utility
Regional Utility Production Company “Dnipro-
Kirovograd”**

Ministry of Communities and Territories Development

June 2020

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1 EXECUTIVE SUMMARY

This Abbreviated Resettlement Action Plan presents identified risks and impacts resulting from land acquisition and restrictions on land use, associated with the reconstruction of water supply and wastewater networks in the cities of Zhytomyr, Vinnytsya, Ternopil, Kolomya, Cherkasy, Novovolynsk and Kropyvnytsky (the subprojects) and how they will be addressed. The subprojects are being managed by the relevant utility companies in these cities.

These subprojects are a part of the Second Urban Infrastructure Project (UIP2), implemented by the Ministry of Regional Development, Construction and Communal Services of Ukraine (Ministry) and financed from loan funded by the International Bank for Reconstruction and Development (WB) and Clean Technology Fund. The subprojects are required to comply with Ukrainian legislation and the WB Operational Policy (OP) 4.12 on Involuntary Resettlement.

The key identified risks associated with the construction phase of the subproject, which may cause loss of livelihoods if not addressed properly, are:

- Use of privately owned agricultural land or public land used formally or informally for gardens and fruit trees.
- Temporary loss of (or more difficult) access to residential properties and businesses, during construction.
- Risks of interruptions of utilities (e.g. water supply) during construction.

The completed subproject components in Novovolynsk, Cherkasy and Kropyvnytsky, as well as the completed sections in Zhytomyr, Ternopil and Kolomya, required the use of 54 privately owned land plots, owned by 52 owners, of whom 7 are legal entities and the rest (45) are individuals.

Future construction activities require the use of 18 privately owned land plots, owned by 12 owners, of whom 1 is a legal entity and the rest (11) are individuals. The affected land plots by city are:

- Zhytomyr (3 land plots, owned by 3 individuals)
- Vinnytsya (15 land plots, owned by 8 individuals and 1 legal entity)

Four public land plots with small gardens and trees, used by nearby residents, will also be affected, as well as a parking lot and playground in Ternopil.

To avoid and/or minimise disruptions of access to residential and business properties the construction contractors will primarily be obliged to create safe vehicle and pedestrian crossings, ensure alternative access to properties and implement specific measures for any identified vulnerable individuals (e.g. access for wheelchairs, emergency service vehicles), to ensure they have safe access to their properties.

The construction contractors and Utility Companies will also provide timely information to all affected residents and businesses about interruptions of utilities, when they are expected to be re-established and will provide alternative supply if needed (e.g. mobile water tanks for water supply interruptions).

If despite all undertaken prevention / mitigation measures businesses experience substantial financial losses because of difficult access for their customers, difficulties for receiving or

making deliveries, or because of construction nuisances such as interruptions of utilities (e.g. water supply or sewerage service), they will be able to submit claims for compensation of lost net income. If the claims are proved / established in accordance with Ukrainian legislation and WB OP 4.12, compensation will be provided according to Ukrainian legislation, in kind or in cash.

At least two weeks prior to the beginning of construction, community level public consultation meetings will be held with residents and any business owners / operators in a particular section. The construction contractor's and Utility Company's representatives will discuss with affected people/parties safe access to individual properties and agree how it will be organised, paying particular attention to any vulnerable individuals. The contractor and Utility Company will inform affected people about the planned start and end dates, as well as the subproject grievance management procedure (persons responsible for addressing grievances and their contact details). Notices will be put up in construction areas with that same information after the meetings.

The grievance mechanism will be implemented by the construction contractor and the Utility Company, to ensure that grievances are addressed promptly and efficiently.

2 INTRODUCTION

The Ministry of Regional Development, Construction and Communal Services of Ukraine (Ministry) is implementing the Second Urban Infrastructure Project (UIP2), financed from a loan funded by International Bank for Reconstruction and Development (WB) and Clean Technology Fund.

UIP2 comprises several subprojects implemented in various cities across Ukraine and is managed by a Central Project Management Unit (CPMU) in the Ministry. The subprojects are managed by relevant city utility companies (Utility Company) and they comprise the following activities, which have the potential to impact people/communities:

- Reconstruction of approximately 9.5 km of the water supply network in Zhytomyr, managed by Zhytomyrvodokanal Utility,
- Reconstruction of approximately 9 km of the water supply network in Vinnytsya, managed by Vinnytsyaoblvodokanal Utility,
- Reconstruction / construction of 17 km of the water supply and 5 km of the waste water network in Ternopil, managed by Ternopilvodokanal Utility,
- Reconstruction of 31 km of the water supply network in Kolomyia, managed by Kolomyiavodokanal Utility,
- Reconstruction of 3.3 km of the waste water network in Cherkasy, managed by Cherkasyvodokanal Utility,
- Reconstruction of 24 km of the water supply network in Novovolynsk, managed by Novovolynskvodokanal Utility,
- Reconstruction of 27 km of the water supply network and 515 m of the waste water network in Kropyvnytsky, managed by Regional Utility Production Company “Dnipro-Kirovograd”.

Throughout Abbreviated Resettlement Action Plan (A-RAP), various involved utility companies are referred to as ‘Utility Company’ meaning the company responsible for activities within the relevant city, or jointly as ‘Utility Companies’.

This A-RAP has been developed by the CPMU with assistance from a team of social consultants (the ‘consultants’), to present identified risks and impacts resulting from temporary access restrictions and use of land, associated with the construction phase of the subprojects, and how they will be addressed, in accordance with requirements set forth by Ukrainian legislation and the WB Operational Policy (OP) 4.12 on Involuntary Resettlement.

It should be noted that the subprojects include other components not addressed in this document because they will not have direct negative impacts on people/communities, such as reconstruction of water or wastewater treatments plants, reconstruction of water and waste water pumping stations located within the premises of the utility companies, works on water and waste water pumping stations, procurement of equipment, etc. One of the subprojects which only has activities within the utility company territory and its premises, and will therefore not be addressed in this A-RAP, will be implemented in Kiev.

Construction activities on subprojects in Zhytomyr, Ternopil, Kolomyia have already begun and some sections have already been completed. In Novovolynsk, Cherkasy and Kropyvnytsky, activities which required the use of privately owned land and/or had the potential to cause difficulties in access to properties, have been completed. For these three

subprojects, and the completed sections in Zhytomyr, Ternopil and Kolomyia, the A-RAP provides an overview of impacts and how they have been mitigated in comparison with WB OP 4.12 requirements.

Separate A-RAPs are available for two UIP2 subprojects, as follows:

- Reconstruction of wastewater and sludge treatment facilities in the city of Kharkiv
- Construction and operation of a new modern regional landfill facility in the city of Derhachi, Kharkiv oblast.

3 DESCRIPTION OF THE SUBPROJECTS' MAIN FEATURES

The following section has been developed based on information received from the relevant utility companies and obtained through field visits to several cities, as described in Section 4 of this A-RAP. Photos from the field visits have been included, to demonstrate some of the works being carried out and potential impact areas, which are expected to be largely the same for all subprojects, and require the same mitigation measures.

3.1 Construction Methods to be Used for the Subprojects

Construction works on all subprojects will be carried out through one or a combination of three possible methods:

- Open trench, involving digging of a canal (of various widths on different subprojects) in which the pipeline will be placed, after which land will be restored to its previous condition;
- Horizontal directional drilling, in which open pits (of varying sizes on different subprojects, for example, 2 × 8 m or 6 × 8 m) are dug up at certain distances from each other (between 50 and 300 m on different subprojects) and then between these pits, horizontal directional drilling of a canal for the pipeline is carried out, not affecting any land above. After construction, the open pits are closed and land restored to its previous condition.
- Pipe in pipe method (sanation method), which is similar to horizontal directional drilling, because a new pipe with a smaller diameter is laid inside of an already existing pipe, while the amount of disruption to land and other assets above may be even less, i.e. with less open pits. As with horizontal drilling, the pits are closed and land is restored to its previous condition.

3.2 Ongoing Subprojects

3.2.1 Subproject in Zhytomyr

In Zhytomyr, the activity which may have impacts on people/local communities is the reconstruction of approximately 9.4 km of the water supply network, excluding underwater river crossings. Of that, 4.5 km have already been completed until the end of 2019 and 4.9 km remain to be reconstructed.

The works are being carried out through all three construction methods listed in Section 3.1. In some sections, the pipeline is being reconstructed under water (at river crossings) and the associated works are being carried out on public land. However, to date, one privately owned

land plot has also been identified as being needed for opening a pit, as described further down in the text.

Figure 1 Footprint of water supply network reconstruction in Zhytomyr (red – open trench method; green – horizontal drilling, blue – pipe in pipe method and purple – underwater river crossings)



The 4.5 km of works which have been completed include the following:

- section from Chernyakhivskogo str along Chumatsky Shlyakh st., Radonova str., and Ostrovsky str to Zahidna street, where horizontal drilling was used, with open pits every 50 to 100 metres
- section from the village Zarichany (along the river) to the District Hospital and to Gonty street, using the pipe in pipe method, and
- the crossing of the river Teteriv between the Nahirny lane and Zaryachansky lands (underwater crossing)

During the site visit of the CPMU and the consultants in August 2019, some of the above mentioned works were already ongoing. As can be seen from Figure 2 and Figure 3 below, the locations of open pits were on public land and significantly far from creating any impacts on nearby receptors. Traffic was also uninterrupted by the works.

Figure 2: One of the open pits where the works are being carried out, on public land next to the road, with no nearby receptors



Figure 3 Open pit in an area where the pipe in pipe method is being used, access for cars and pedestrians is uninterrupted



During the reconstruction of the water supply network, a privately owned land plot will have to be disturbed, including a fence. An agreement was signed with the owner of the land and fence, specifying that everything will be restored back to its original state when the works have been completed (see Annex 2, agreement 1).

The use of privately owned land will be needed in two more locations for open pits. In one, a part of the fence of the owner of land will have to be demolished (see Figure 4) and in the other, land that will be needed is being used by the owner as a small garden which, at the time of the site visit, did not appear to be regularly maintained (see Figure 5). Both owners of the affected properties have been contacted by the Utility company and agreements were signed with them (see Annex 2, agreements 2 and 3), specifying that the works may be carried out and that the properties (fence and land) will be fully restored to their previous condition. As there are houses surrounding the second location, the Utility company has also already spoken to nearby residents informing them that there will be construction activities there.

As it stands now, all of the other rehabilitation works will be performed on public land and there will be no need to occupy or disturb any privately owned land. However, as unforeseen circumstances related to the conditions of pipes and other aspects of the works, are possible, it may be necessary for the contractor to use some more privately owned land. In all such cases, the owners will be notified in due course and an agreement will be signed, ensuring that all properties are fully restored to their original condition, upon completion of works.

Figure 4 The fence which will have to be demolished for an open pit, where the pipe in pipe underground method will be used



Figure 5 Small garden area where a pit will be opened for the pipe in pipe construction method



In one particular location (Nahirnyi Lane), the Utility company initially planned to implement the open trench method of reconstruction. However, after discussions with the WB and the CPMU, the method which will be used was changed to horizontal directional drilling method, because the street is very narrow and opening a trench would prevent people from accessing their homes (see Figure 6).

Figure 6 Narrow street (Nahirnyi Lane) where the pipe in pipe underground method will be used, with several open pits, however access to properties will be maintained at all times



In Zhytomyr, of particular concern is the fact that during construction, a part of the main water supply pipeline for the city will be affected and the water supply will likely have to be stopped for a significant part of the population. The company is currently considering ways for overcoming the issue, one of which is creating a temporary bypass to ensure uninterrupted water supply during works. If this is not possible, the anticipated interruption for carrying out the works will not be longer than 2 days and the company will try to implement these works at the same time as the regular maintenance period. The city already has many difficulties with the water supply and three times per year the water supply is stopped for two days for maintenance (usually during weekends and holidays to minimise impacts).

3.2.2 Subproject in Vinnytsya

As part of the Vinnytsya subproject, the Utility Company is planning to carry out the reconstruction of the water supply network with a length of approx. 9 km through urban areas. The works will be carried out in six sections and no acquisition of privately owned land is needed. All activities will be carried out on public land and along public roads. Two construction methods will be used - open trench, marked in red in Figure 7 below and horizontal drilling, marked in light blue. Works in one location are expected to last an estimated five days. The Utility company is intending to construct a new pipeline in parallel to the existing one, thereby not having to interrupt the existing water supply at all, during construction. Despite that, depending on the circumstances, the works may require the water supply to be temporarily stopped, however not for longer than 1.5 days for one group of customers (residents and businesses).

Figure 7 Footprint of water supply network reconstruction in Vinnytsya (red – open trench method; light blue – horizontal drilling)

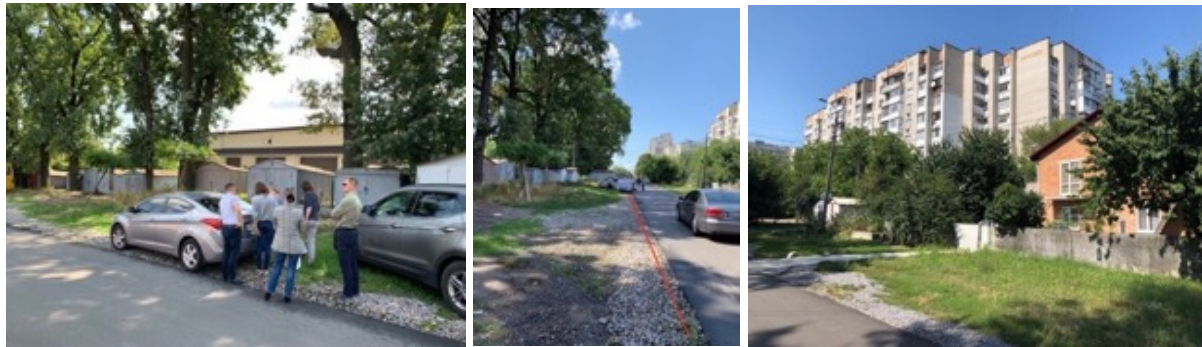


There are several sensitive locations along the footprint of the project where measures to prevent impacts on receptors will need to be undertaken.

In one location, the construction works will affect access to a number of garages / storage facilities (approx. 50), which are actually mobile container units, lined up behind a public green space running alongside the street (see Figure 8). The company considered using horizontal drilling method of pipeline laying to avoid creating access difficulties to owners of the units in this location, however because of the ground configuration, this will not be possible and the open trench method will be used.

The construction works will last approximately 5 days. During this time, temporary overpasses (over the open trenches) allowing people to enter their garages / storage areas on foot, in several locations, will be provided. There is also a lot of parking space on the opposite side of the street, which people may use during the construction period if they cannot access their garages with vehicles (see Figure 8, third photo).

Figure 8 Location where access to garages (storage facilities) will be more difficult as a result of open trench digging (first two photos); parking space across the street (third photo)



Following the site visit, a few other sensitive locations were identified. One is an area that is used for car parking, which will have to be crossed by construction (see Figure 9, first photo). However, across the street is a maintained parking area, in front of the large apartment building, which may be used during construction (see Figure 9 second photo) as well as numerous other empty spaces and it is not expected that the construction works will cause major inconveniences.

Figure 9 Location of the parking area which will be crossed (first photo); photo from the opposite direction of the street, showing the official parking of the apartment building which may be used during construction (source Google Earth)



In another location, the construction works will be carried out across 4 lawns and small gardens in front of houses (with several fruit trees), which are public land but are being informally used by the owners of the houses. In front of one house there is also an asphalt covering which will have to be dismantled for the works. As the street is very narrow, during construction, access for several houses that can only be accessed through this street will be difficult, but it must be maintained at all times for the residents.

Figure 10 Small informal gardens which will be crossed by the construction works (source: Google Earth)



Finally, in that section of the works, there is a children's playground which is located on the footprint of the project and will partly be dismantled during construction (see Figure 11). As the safety of children is of utmost importance, the playground will have to be closed until the works are completed, which will most likely last only one week and perhaps a little more time to completely restore the parts of the playground which would be dismantled for construction purposes.

Figure 11 Children's playground which will be affected by construction



3.2.3 Subproject in Ternopil

Implementation of SUIP Subproject in Ternopil , in particular reconstruction of about 17 km of water supply network and about 5 km of sewerage network (Fig. 12), in particular:

- Reconstruction of water supply network from Verkhniy Ivachiv village to Ternopil, 15 April str;
- Reconstruction of distribution water supply network from the outlet of WPS №4 on April 15 str in Ternopil;
- Reconstruction of pressure-self-flowing collector from the chamber "A" on Dovzhenko street WWTP on Obizna str in Ternopil;
- Reconstruction of the pressure collector from WWPS №7 on Halytska str to switching chamber on Konovaltsya str in Ternopil.

The section of the distribution water supply network from the outlet of WPS №4 on April 15 street in Ternopil and about 900 m of pressure collector from WWPS №7 on Halytska str to the switching chamber on Konovaltsya str are completed at the moment of current report preparation.

Significant part of the water supply and sewerage networks have to be reconstructed yet under Second Urban Infrastructure Project Implementation. The major part of both networks are yet to be constructed and the open trench method will mainly be used, with the pipe in pipe method only in several sensitive locations.

Figure 12 Footprint of the water supply and wastewater network reconstruction in Ternopil (red – planned footprint, open trench; blue – planned footprint, pipe in pipe; green – works already completed)



Reconstruction of distribution water supply network from the outlet WPS № 4 on 15 April str in Ternopil was particularly important, as it provides round-the-clock water supply to almost 80% of Ternopil consumers. Prior to the start of work, KP Ternopilvodokanal informed the most sensitive consumers (hospitals, medical centers, specialized institutions for children), through previously given written consent for construction work. The works were carried out during the regular scheduled interruption of water supply in the city (which happens several times a year), so there was no additional disturbance for the water supply system for customers.

All works were carried out with the pipe in pipe method, below an existing road and there were no impacts on surrounding receptors. Permissions were granted by the relevant departments of the Ternopil City Council (see Annex 3).

To date, about 900 m of the sewerage network from WWPS №7 on Halytska str to switching chamber on Konovaltsya str in Ternopil are completed and the reconstruction of this section is nearing full completion. All works were carried out by open method on the territory of public land plots, without the use of privately owned land plots.

During the analysis of the route of sewerage network planned to be reconstructed, several sensitive points were identified where construction works can create a negative impact on the city social sphere and appropriate mitigation measures were implemented:

- Reconstruction works were carried out near the gas station (Halytska, 38 str), however two access roads lead to the gas station, it allowed to provide constant access to gas station and no effects on the operation of the station were identified (Fig. 13, first photo);
- Construction works were carried out on the territory of public land plot (land plot is not used for any activity), located behind the Ternopil Higher Vocational and Technical School named after M. Parashchuk (Halytska, 29 str);
- Reconstruction works envisaged the temporary use of the territory of parking lot of PJSC ATP 16127 (Fig. 14, Second photo), an agreement with mentioned enterprise was signed and it guaranteed the availability of access to the parking lot around o clock and performing of construction works by several sections to allow to move parked cars in different parts of the parking lot in order to avoid any possible restrictions.

It should be noted that all above-mentioned social infrastructure facilities were informed in detail about construction works by Ternopilvodokanal Utility before the start of construction, and all of them provided their written consents.

Figure 13 Gas station with two access roads, one of which always remains open to allow access to the gas station during construction works (first photo); Car park area through which the works are passing, which is large enough to allow for re-arranging the parking space and avoiding any impacts (second photo)



The works are also being carried out next to a car wash business including a small café on one side of the site. The business owner was informed ahead of the works and only requested that they be carried out in a way to enable access to the car wash at all times. Works at the intersection of two streets are being carried out in sections to allow vehicle traffic to continue at all times.

Figure 14 Car wash with a small café which are both accessible at all times during construction



The planned reconstruction of networks (water supply network and drainage network) will require further solution of number issues related to the type of implementation of construction works.

Reconstruction of the pressure-self-flowing collector from the chamber "A" on Dovzhenko street to the WWTP on Obizna Street in Ternopil is supposed to be held on the territory of a narrow street (Sadova Street) with access for vehicles from only one side. Ways to address the issue of avoiding negative impact on the residents of this street were considered and discussed by the Utility Company and the Contractor, as well as the PMU and the Consultant. However, according to the team responsible for design documentation development, the only option for the construction of collector section is construction along the Sadova street with the open method of reconstruction.

Given the diameter of the pipe planned to be used during the construction of this section, the width of the trench planned to be dug will be quite large and pedestrian access to private land plots will be difficult, and at the same time impossible for vehicles during construction works.

It should be noted that on Sadova street are located large number of private houses, some of which can be classified as high-end properties. The houses are not connected to the public sewerage system, and the construction of this collector will not allow them to do so. Therefore, the works not enable them to do so, which is likely will increase their dissatisfaction. The utility is aware that the construction work will be a difficult task, and there is a need for a series of consultations to inform residents and discuss the type of compensation that residents can receive to mitigate the consequences. Possible options are to find a way to connect houses to the city sewerage system or asphalt the street, which is currently a dirt and gravel road.

Figure 15 The narrow street (Sadova str) where the open trench method was originally planned to be used, however has since been abandoned to avoid impacts



At the stage of subproject preparation, the utility company held public meetings with the heads of territorial communities of three villages in order to obtain permission to carry out construction works on the territory of public lands under their jurisdiction: Hai Grechynski vilage, Baykivtsi village and Bila village (see Annex 3).

On sections where it will be necessary to use privately owned land plots, the Utility has received the support of heads of local communities in the process of informing the landowners and obtaining their permission to carry out work on privately land plots.

According to the plan of reconstruction on the territory of Hai Hrechynski village it is planned to use the open method of reconstruction of water supply network and method of sanitation with the digging of pits. One of the pits will be located on the territory of public land plot where the trees are planted (Fig. 17 First photo). The diggings of the following pits is envisaged on the privately owned territory (Fig. 17 Second photo).

All land plots where pits are supposed to be developed are located in two villages - Hai Hrechynski and Baykivtsi (Fig. 16 Below). The list of identified land plots where the development of ditches and their owners is envisaged is given in Annex 3.

Figure 16 Areas belonging to Hai Hrechynsky and Baikivtsi villages where open pits will be located on privately owned land.



According to the design documentation Ternopilvodokanal Utility in Hai Hrechynski village, it is planned to develop 8 pits, 6 of which will be need to be developed on the territory of private owned land plots. In total, 5 landowners will be negatively affected (the digging of two pits is envisaged on the territory of one land plot).

According to the design documentation, on the territory of Baykivetska territorial community it is planned to construct 10 pits during the reconstruction of water supply network by sanitation method:

- 6 pits on the territory of 4 privately owned land plots (2 land plots are owned by one owner) - three land owners are affected by construction;
- 2 pits on the territory of a privately owned land plot (1 land plot) owned by a private company;
- 1 pit will be located on Baykivetska territorial community land;
- 1 pit will be located on the territory of Ministry of Internal Affairs of the State Automobile Inspectorate land plot.

Agreements with four of five landowners about temporary access to their land plots in Hai Hreczynski village have been signed, however, as construction work has been postponed, new agreements have to be resigned after the construction works schedule will be clarified, including landowners with whom no agreements have been concluded earlier and an agreement with the local community.

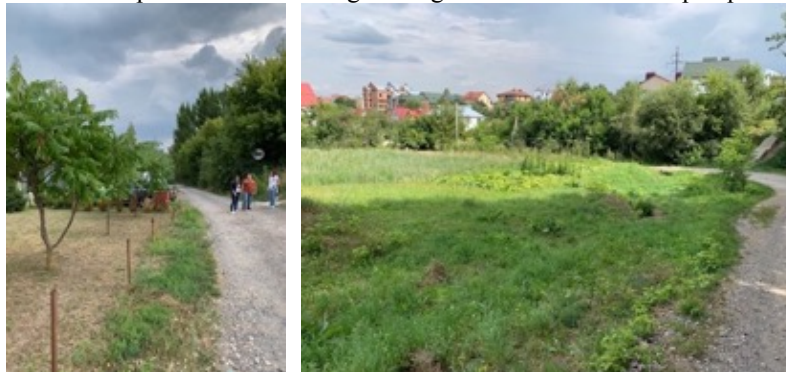
One more plot of land will be affected during construction (agricultural field between the two marked areas on the map in Figure 16) and here, the open trench method will be used. The owner of this land has previously provided an agreement, mentioned person is the owner of one of the land plots on the territory of the settlement where the digging of pit is envisaged.

An agreement has been concluded with a private company located on the territory of Baykivetska Territorial Community to construct two pits.

However, as it was mentioned above, due to delays in construction, resigning of existing and signing of new agreements on temporary use of land plots.

Construction works on agriculture land plots is planned in the autumn, when the agriculture works will be completed and all vegetables / crops will be harvested, there is planned no compensation for the harvest.

Figure 17 Public land plot with planted trees on the left, where one open pit will be located (first photo); Privately owned land plot with a small vegetable garden where another open pit will be located (second photo)



The Environmental and Social Management Plan (ESMP) was disclosed on the web site of the Utility Company on 07.10.2019. and a public hearing was held on 16.10.2019., to present the plan and to hear opinions and suggestions. No objections or comments were submitted to the Utility Company or provided at the meeting. The contractor is acquainted with ESMP.

3.2.4 Subproject in Kolomya

In Kolomyia, the activity which may have impacts on people/local communities is the reconstruction of approximately 31 km of the water supply network. Around 24 km of the works have already been completed until the end of 2019 and only 7 km remain to be reconstructed.

All works are being carried out in sections, through the open trench method, on public land (along existing roads). In some locations, the road asphalt may have to be removed and potential traffic re-routings have to be carried out, as specified in the ESMP.

Figure 18 Footprint of water supply network reconstruction in Kolomya (green – completed sections, red – planned for reconstruction)



The subproject includes the installation of new pipes and while this is being done, old pipes are still in use, reducing the possibility of any water supply interruptions. Such interruptions may occur in the process of moving from the old to the new network, however they have been minimized significantly (3 hours on average).

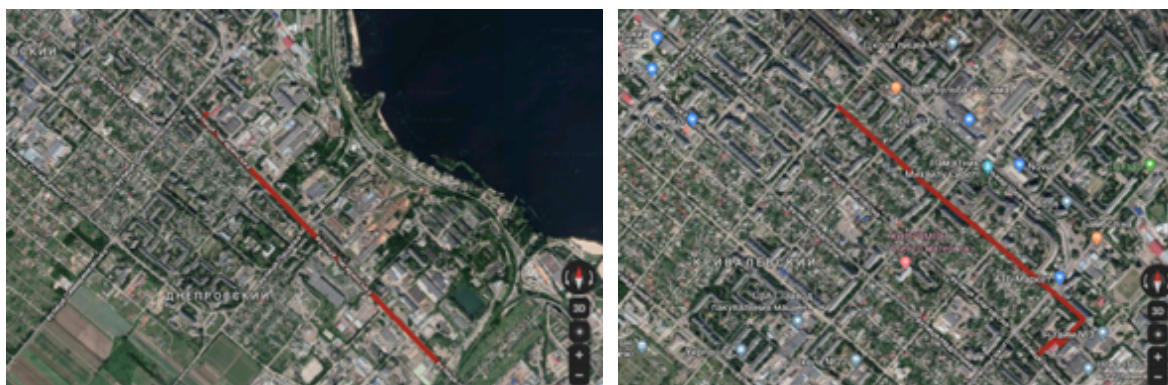
A review of relevant grievances received by the Utility Company from the start of works shows that people mostly enquire about water supply interruptions (how long will they last) and complain about the restoration of asphalt upon completion of works, which, for this subproject, is the responsibility of the city, not the Utility Company or construction contractor. Nevertheless, it is the Utility Company's responsibility to monitor whether the city authorities are addressing these grievances and to report to the CPMU and the WB.

3.3 Completed Subprojects

3.3.1 Subproject in Cherkasy

The subproject in Cherkasy included reconstruction works of approx. 3.3 km of the waste water system in Chyhyrnska Street and Hoholia Street (see Figure 19 below), which were all completed during November 2019. All works were completed in sections and mostly using the open trench method, on public land, without the need for temporarily occupying or acquiring any privately owned land. In several areas, particularly under existing streets, the pipe in pipe method was used with a distance of around 100 m between open pits, to avoid any damages to the roads and the need to re-direct vehicle traffic.

Figure 19 Reconstruction of the main sewer collector on the Chyhyrnska and Hoholia streets in Cherkasy



There were no impacts on accesses to private properties or business facilities, because the works were carried out in the green zone between two parallel roads, the two main avenues and local roads running in parallel to them. No trees had to be removed for the works.

A temporary bypass for transportation of waste water was installed during construction, in the form of an above-ground pipe and there was no interruption of service for customers. Upon completing construction activities, land in the green belt was restored to its previous state, as can be seen in Figure 20.

Figure 20 Local roads running in parallel to the two main avenues which were not disturbed by construction. All works were carried out in the green belt between the avenues and the roads (on the left side of the photos)



The Environmental and Social Management Plan (ESMP) was disclosed on the web site of the Cherkasyvodokanal Utility from mid January 2020 and a public hearing was held on 4 February 2020, to present the plan and to hear opinions and suggestions. No objections or comments were submitted to the Utility Company or provided at the meeting.

3.3.2 Subproject in Novovolynsk

The subproject in Novovolynsk included reconstruction works of approx. 24 km of the water supply system in parts of Novovolynsk as well as two surrounding villages, Stara and Nova Lishnya (see Figure 22 below), which were all completed by November 2019. Most works were completed using the open trench method, except for one section in Stara Lishnya, where the pipe in pipe method was used in one section. The pipe in pipe method was also used at road crossings whenever possible, to reduce the need for damaging the asphalt surface and the need to re-direct vehicle traffic.

Construction works were for the most part carried out on public land, in green areas along existing roads. Permissions for the works were obtained from the Novovolynsk City Council to use all public land under its jurisdiction, needed for reconstruction works. In one case, the works had to be conducted through the sports field of a secondary school, for which permission was also obtained.

In some locations, construction works were carried out on privately owned land, used for agriculture. In two cases, permissions from the owners were sought in cooperation with the local city councils, from a total of 20 owners of the land in question (17 in Stara Lyshnya and 3 in Novovolynsk). Another 24 affected owners of land provided individual permissions. Finally, one user of public land who also granted permission for the works, was a private company. All of the affected owners and the user granted the use of the land without compensation, as the reconstruction of the water supply was an extremely important project for the local communities.

In all agreements, it was specified that properties will be fully restored to their original condition after completion of construction. In areas with agricultural activities, topsoil that was removed during the works was preserved and then re-instated after the completion of construction activities, as this is high quality fertile land. All works were to be completed during late fall and winter so that no agricultural activities would be impacted.

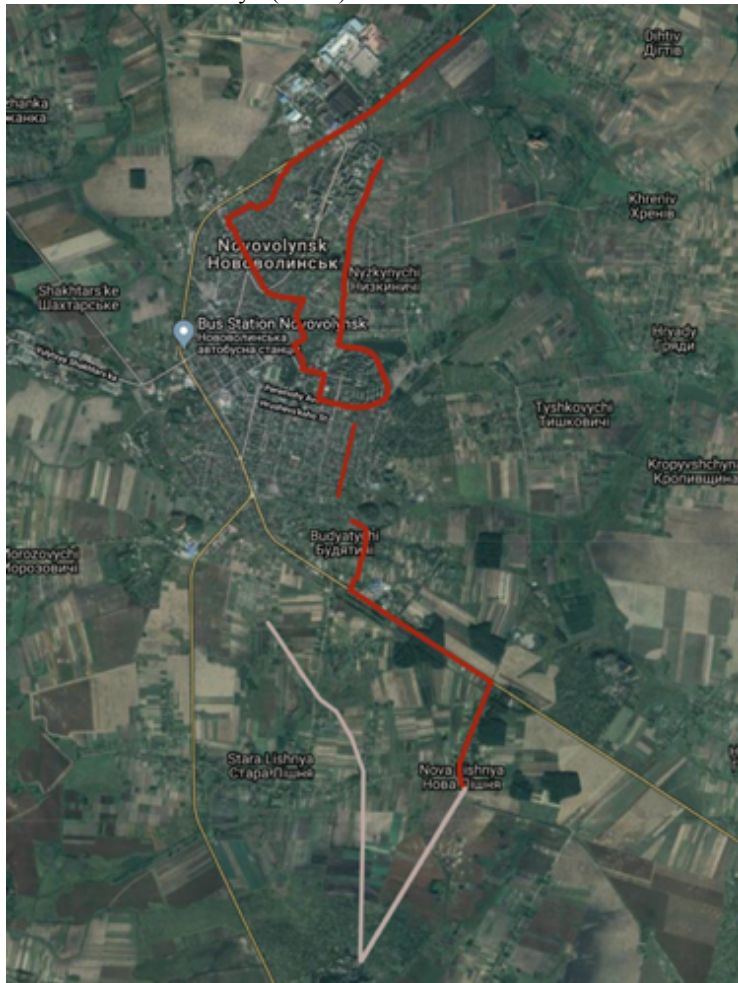
All permissions received for the works are provided in Annex 4. For the land owners from Stara Lishnya, a consultation meeting was held on 05.10.2016., where they provided their agreements by signing the meeting minutes. Permissions for 62, 64, 67 Panasivska str. were also received jointly at a meeting held on 20.02.2017., while all other permissions were provided individually. There were no grievances and compensation requests.

As can be seen above, Novovolynskvodokanal Utility had extensive consultations with affected people on all project aspects and allowed their views to impact the project design, to avoid impacts. As presented in the paragraphs above, many meetings were held, first with local councils and individually and in groups with local residents, until solutions, satisfactory to all sides were found. Photos of engagement with local residents are provided in Figure 21.

Figure 21 Novovolynskvodokanal Utility engaging with local residents in Heroiv Krut street



Figure 22 Footprint of the completed water supply network reconstruction in Novovolynsk (red) and villages Stara and Nova Lishnya (white)



The ESMP for the subproject in Novovolynsk was disclosed and a public meeting was held on 14 February 2020.

3.3.3 Subproject in Kropyvnytsky

The subproject in Kropyvnytsky included reconstruction works of approx. 26 km of the water supply network and 515 m of the waste water network (see Figure 23), which were all completed in 2017.

For around 11 km of the footprint, the pipe in pipe method was used and open pits were located at a distance between 200 and 300 m. All construction works were carried out on public land, in green areas / parks along existing roads and without creating any access difficulties for residents and businesses along those roads. This method of works also prevented causing any damages to the roads and the need to re-direct vehicle traffic.

For the remaining 15 km of the footprint, the open trench method was used. Construction works were also carried out in sections and for the most part on public land, in green areas, along existing roads. However, some privately owned land also needed to be used temporarily, during construction.

Figure 23 Footprint of the completed water supply and waste water network reconstruction in Kropyvnytskyi (second photo: water pipeline bypassing "Konstantynivskogo rozrizu", which is located far from Kropyvnytskyi and is provided on a separate map)



A total of 9 plots, all agricultural land, belonging to 7 owners were affected during construction, in the Pervozvanivska village. One of the owners was an individual, while the remaining six were legal entities, of which four were individuals registered for agriculture ('farmer enterprises') and two were private companies for agricultural production. Agreements allowing the use of these land plots were signed by the affected owners (Annex 5).

It should be noted that in some instances, the affected land owners provided only permission for the use of land, while in others, the owners themselves requested contracts to be signed between them and the Utility Company. Only one affected landowner requested compensation for the use of land (which was also recorded as a grievance in the grievance log) and this was stipulated in the contract signed between him and the Utility company, after which compensation was paid and the grievance closed. All other land owners provided the use of their land for free, because the rehabilitation of the water supply was seen as an extremely important project for the whole community. At the same time, the agreement between them and the Utility company was that works would be carried out in fall, when crops were harvested and new ones were not yet planted, so no damages would occur.

A total of 5 grievances were received and successfully resolved by the Utility Company and the contractor, one of which was mentioned previously, for provision of compensation for the use of land. Another owner of land who, according to the signed contract, also provided the use of his land for free, subsequently requested compensation for some damages caused by construction, and this was also paid by the Utility Company. Another grievance related to

compensation for a damaged fence and two more related to compensation for damages to asphalt surfaces, were solved by the contractor, who also provided compensation. The ESMP for the subproject in Kropyvnytsky was disclosed and a public meeting was held on 19 February 2020.

3.4 Conclusions on Completed Activities

The completed subproject components in Novovolynsk, Cherkasy and Kropyvnytsky, as well as the completed sections in Zhytomyr, Ternopil and Kolomya, required the use of 54 privately owned land plots, owned by 52 owners, of whom 7 are legal entities and the rest (45) are individuals. An overview is provided in Table 1 below.

Table 1: Summary of affected land plots and mitigation measures for all completed activities

City	Affected land plots	Mitigation measures
Ternopil	One privately owned plot, open trench through the parking area of one private company	Agreement signed prior to construction, asphalt in the process of being restored
Novovolynsk	44 privately owned plots of land, used for agriculture, open trench method 1 public plot of land, used by a private company, open trench 1 public plot of land, used by a school (sports field), open trench	Agreements signed prior to construction, all land restored to previous condition (topsoil preserved and re-instated in agricultural areas) and works carried out outside of agricultural season.
Kropyvnytsky	9 privately owned plots of land (7 owners; one individual and 6 legal entities)	Agreements signed prior to construction, compensation provided for two land plots, one fence and asphalt in two locations.

For the use of all these land plots agreements were signed or permissions given, affected assets were restored to their previous condition and where compensation for damages or losses was requested, it was provided.

Agreements were obtained from businesses in Ternopil and measures were undertaken to enable access to these properties during construction. There were no grievances in relation to access difficulties, which caused further impacts on livelihoods.

Grievances were only submitted for some of the completed works in Kolomya, which consisted of requests for information on when the water supply would be re-established.

The Utility Companies engaged with affected individuals and local communities and councils to obtain the necessary agreements and respond to grievances. ESMPs were disclosed by all Utility Companies, where the works have been completed.

From all of the available documents, it can be concluded that impacts were managed in compliance with the requirements of OP 4.12 and no corrective measures need to be implemented.

4 METHODOLOGY FOR DATA COLLECTION AND DEVELOPMENT OF THE A-RAP

The aim of this assignment was to identify any impacts and risks resulting from subprojects related to temporary or permanent land acquisition and/or restrictions on land use. This refers both to physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or resources, and/or loss of access to assets or resources that leads to loss of formal and informal income sources or means of livelihood). Upon identification and assessment of impacts and risks, the CPMU, together with consultants, developed the A-RAP to address them.

To prepare this A-RAP, the following activities and methods were implemented by the CPMU¹ and the consultants:

- Review of all available and relevant subproject documents and materials, including CPMU monitoring reports, discussion on previous cooperation between the CPMU and the Utility Companies and site visits of the CPMU to the subproject area;
- Preliminary meeting with WB social specialists, to discuss the task;
- Meetings with representatives of the Utility Companies in Zhytomyr², Vinnytsya³ and Ternopil⁴, to discuss, in more detail, the following topics and issues:
 - subproject components, construction plans,
 - consideration of alternative routes for pipeline construction,
 - identified environmental and social risks and implemented mitigation measures,
 - implemented and planned stakeholder engagement activities and grievance management,
 - additional activities that need to be implemented (and timeline) to develop the A-RAP,
 - potential mitigation measures which would be included in the A-RAP, which the Utility Company and construction contractor will need to implement in order to comply with WB OP 4.12.
- Site visit to the subprojects' locations (on 02.08. and 06.08.2019.), i.e. critical areas along the subprojects' footprints in Zhytomyr, Vinnytsya and Ternopil;
06.08 is established as the cut-off date⁵ for the census and enumeration of locations and structures that could be potentially impacted during construction activities (as presented in section 6 of this ARAP).
- Second meeting with the WB social specialists to inform them of the preliminary findings (Annex 1, checklist) and agreed next steps,

¹ Doroshenko Victor, Head of CPMU and Honcharova Anna, Safeguard Specialist of CPMU

² Andriy Nikitin, Director of Zhytomyrvodokanal Utility, Alexander Gavrilo, Development Director for Zhytomyrvodokanal Utility, Bogdan Vyhovsky, Head of the Development Department of Zhytomyrvodokanal Utility.

³ Oleksandr Yakimenko, Head of Procurement and Supply Division of Vinnitsyaoblodokanal Utility, Larisa Korol, Procurement Specialist of Vinnitsyaoblodokanal Utility.

⁴ Irina Vegera, Deputy Director of Ternopilvodokanal Utility, Roman Romaniv, Chief Engineer of Ternopilvodokanal Utility, Taras Fedunchyk, Head of Department of Ternopilvodokanal Utility, Victoria Maksymlyuk, representative of the RPMU of Ternopilvodokanal Utility, Sergiy Dzedzyk, Deputy Chief Engineer of Ternopilvodokanal Utility.

⁵ Users of land are entitled to compensation under this ARAP if they occupied the project locations prior to the established cut-off date. Persons who encroach on the locations after the cut-off date are not entitled to compensation or any other form of assistance.

- Review of the final and potential footprints of the water supply and waste water pipelines, using google maps, to identify general impacts and key sensitive locations,
- Continued communication with the Utility Companies to request additional information and clarifications and drafting of the A-RAP.

5 IDENTIFIED SOCIAL IMPACTS / RISKS

A summary of social impacts/risks assessed during the assignment and proposed mitigation measures is provided in Table 2 below. As the designs for some subproject activities are not completed and there may still be a need to make small changes, which could have social risks and/or cause certain impacts, any such identified risks and impacts will be addressed in the same manner as those already identified and presented in the A-RAP. More detailed information in relation to affected people / entities is provided in Section 6 of the A-RAP.

It should be noted that additional risks and impacts, for example those in relation to traffic disturbances, community health, safety and security and labour issues, have been addressed in a separate document – the Environmental and Social Management Plan (ESMP) for the subproject, and the below listed risks and measures should be considered in conjunction with those presented in the ESMP.

Table 2: Summary of assessed impacts and risks, key observations and findings and proposed mitigation measures

OP 4.12 related impacts/risks	Findings /observations	Mitigation measures
Permanent acquisition of privately owned land and loss of any associated assets (plants, trees, crops, etc.).	No privately owned land needs to be permanently acquired and therefore no assets on privately owned, permanently acquired land will be affected.	None.
Temporary (during construction) use of privately owned land and loss of any associated assets (plants, trees, crops, etc.).	In Zhytomyr, three privately owned land plots will be needed for open pits. In Ternopil, 14 privately owned land plots will be needed for open pits and one for open trench. Most of the land plots have trees and plants that will also be affected and several are used for agriculture.	Provision of information to owners and signing of agreements (permissions). Informing the owners before construction begins, so that they do not plant vegetables and other annual plans. If this is not possible, i.e. plants, trees are affected, compensation for all lost assets will be provided at full replacement cost. Restoring all land to its previous condition upon completing construction. Photo log of the baseline conditions of affected areas and conditions following the completion of construction works.
Temporary or permanent use of public land and loss of any associated assets (plants, trees, crops, etc.).	In Vinnytsyia, 4 public land plots which are used by owners of houses next to them, will be affected by construction (open trench). The land plots are used as vegetable gardens and some also have fruit and other trees on them which will have to be removed for construction. In Vinnytsyia, the edge of a	Restoring all land and the playground to its previous condition upon completing construction. Photo log of the baseline conditions of affected areas and conditions following the completion of construction works.

OP 4.12 related impacts/risks	Findings /observations	Mitigation measures
	<p>children's playground will have to be crossed by construction, which means that a part of the playground will need to be dismantled.</p> <p>In Ternopil, two public land plots will be needed for open pits.</p> <p>Construction along green areas which run in parallel to existing streets may require the removal of trees in some locations. These areas are maintained by local authority departments in charge of greenery and they will be compensated by the Utility Companies, as agreed with the relevant departments.</p>	<p>During construction works in the playground area, closure of the playground with full safety measures (fences fully preventing any access and warning signs). Carrying out construction works during the school break if possible.</p> <p>Identification of trees which will need to be removed before construction, in coordination with relevant local authority departments in charge of green areas.</p> <p>Avoidance of removing healthy trees wherever possible.</p> <p>Informing residents before construction begins, so that they do not plant vegetables and other annual plants in the small gardens on public land. If this is not possible, i.e. the gardens are affected, compensation for all lost vegetables and other plants will be provided at full replacement cost.</p> <p>Informing residents which trees will be removed and how they will be replaced. In case of removal of trees grown by private individuals, agree the compensation (replacement of the tree or cash compensation).</p>
Loss of structures, residential or other	<p>Residential or other buildings will not be affected by the subprojects. The subprojects will not cause any physical displacement.</p> <p>In several locations, small structures, such as fences or paved surfaces, may have to be removed for construction works to proceed.</p>	<p>Any structures, such as fences and paved surfaces, will be either compensated in cash at full replacement cost or completely restored to their previous condition, as agreed with the owner of the structure.</p>
Temporary loss of (or more difficult) access to residential properties and businesses, during construction (particularly vulnerable individuals ⁶).	<p>Access to properties (public and private) will be more difficult in locations where the open trench method of construction will be used than where horizontal drilling or the pipe in pipe method will be employed. The most likely impacts in a few locations is temporary loss of (or more difficult) access for vehicles to driveways and parking areas in front or back yards.</p>	<p>Implementation of measures to avoid and/or minimise disruptions of access to properties, by:</p> <ul style="list-style-type: none"> • ensuring alternative access where possible • creating safe vehicle and pedestrian crossings (e.g. over open trenches)

⁶ Vulnerable individuals may include, for example, persons who need specialised access to their properties (e.g. individuals using wheelchairs or elderly in need of access ramps) or persons who, due to health issues need close access for vehicles at all times (e.g. emergency services vehicles).

OP 4.12 related impacts/risks	Findings /observations	Mitigation measures
<p>Loss of livelihoods associated with loss of (or more difficult) access to properties.</p> <p>Temporary loss of (or more difficult) access to public properties, social and education institutions</p>	<p>In areas where the footprints of pipelines pass near commercial (business) activities or public buildings (e.g. school), no issues in relation to access difficulties were identified. In addition, the works in a particular section will last no more than 5 days, which is not expected to cause adverse impacts on livelihoods.</p> <p>However, as some of the construction activities will be carried out near sensitive receptors such as schools, kindergartens and playgrounds, it will be necessary to use safety measures to prevent any risks of accidents.</p>	<ul style="list-style-type: none"> organising construction works in smaller sections and shortening the length of construction works, organising, if needed, safe parking areas for residents and businesses whose access to properties (and garages) by vehicles may be impossible during construction. <p>Screening (during community level public consultation meetings) for vulnerable individuals living and/or working along the subproject footprint. If such individuals are identified, implementation of measures to ensure they have safe access to their properties.</p> <p>In case of grievances, provision of compensation to businesses for documented lost net income caused by inability to carry out their economic activities during construction (because of a lack of access to their facilities, inability to receive customers, deliver or receive goods, etc.).</p> <p>Safety measures near sensitive receptors, such as schools, kindergartens and playgrounds.</p>
<p>Risks of interruptions of other utilities (e.g. water supply) during construction.</p> <p>Loss of livelihoods associated with interruptions of utilities.</p>	<p>Construction works on water supply pipelines could cause temporary disruptions in the water supply for customers.</p> <p>On each subproject, the possibility of creating water supply bypasses thereby avoiding interruptions in supply have been considered. Where this is not possible, the utility companies are discontinuing water supply services during regular scheduled maintenance periods, which the population is already accustomed to.</p>	<p>Provide timely information about interruptions of utilities (e.g. temporary shutdown of water or low pressure). In such cases, provide timely information as to when the interruptions are expected to be re-established and secure alternative supply, if necessary (e.g. mobile water tanks for water supply interruptions).</p> <p>In case of grievances, provision of compensation to formal and informal businesses for documented lost net income caused by interruptions of utilities during construction (inability to carry out activities, provide services, etc.).</p>
<p>Stakeholder engagement in relation to the subproject.</p>	<p>Engagement with directly affected people has been carried out in connection to signing of agreements with owners of land (and in a few cases users of public land) on which temporary construction activities will occur. For some subprojects and subproject components, joint meetings with affected people, which also involved the local</p>	<p>Public disclosure of the A-RAP for all Utility Companies.</p> <p>Public disclosure of the ESMP in Vinnytsya.</p> <p>Organisation (prior to construction) of community level public consultation</p>

OP 4.12 related impacts/risks	Findings /observations	Mitigation measures
	<p>authorities, were held by the Utility Companies, while in others, Utility Companies engaged with land owners/users directly and individually.</p> <p>Engagement also occurred in cases of acquiring agreements and/or permissions from sensitive receptors in relation to difficulties in access to properties which could be caused by construction. For example, in Ternopil, several businesses were engaged with to agree with the construction works and how to prevent any access difficulties.</p> <p>In Ternopil, the Utility Company also provided information to receptors sensitive to water supply interruptions, such as hospitals and care facilities, which also acknowledged the information and provided their agreements/permissions.</p> <p>ESMPs were publicly disclosed for all subprojects except for Vinnytsya</p>	<p>meetings with residents and business owners/operators in a particular section, to agree access mitigation measures and inform them of the planned start and end date, safety issues and the grievance mechanism. Putting up notices in construction locations with that same information or delivering leaflets to all buildings in an affected area.</p>
External grievances in relation to the subprojects.	<p>Grievances have been received in Kolomyia. People mostly enquire about water supply interruptions (how long will they last) and complain about the restoration of asphalt upon completion of works. All grievances received to date have been addressed and are closed.</p> <p>No external grievances in relation to the subprojects have been received.</p>	Implementation of grievance management during the construction phase as described in Section 11.3 of this ARAP.

6 AFFECTED PEOPLE/ENTITIES

The key risks associated with the construction phase of the subproject, which may cause loss of livelihoods if not addressed properly, are:

- Use of privately owned agricultural land or public land used formally or informally for gardens and fruit trees.
- Temporary loss of (or more difficult) access to residential properties and businesses, during construction.
- Risks of interruptions of utilities (e.g. water supply) during construction.

Privately owned land and public land used informally by nearby residents for small gardens will be affected in several areas, as presented in Table 3 below. Construction activities require the use of 18 privately owned land plots, owned by 12 owners, of whom 1 is a legal entity and the rest (11) are individuals. Four public land plots with small gardens and trees, used by nearby residents, will also be affected, as well as a parking lot and playground.

Table 3: Affected land plots and owners, as well as mitigation measures for planned activities

City	Affected land plots	Agreements
Zhytomyr	<p>One privately owned land plot will be temporarily occupied for an open pit (underwater river crossing); fence will be affected.</p> <p>One privately owned land plot temporarily occupied for an open pit; fence will be affected (2-y Kolektyvnyi Lane).</p> <p>One privately owned land plot is temporarily occupied for an open pit; fence section is temporary removed</p>	<p>Agreement signed.</p> <p>Agreements initially signed with the land owners, but will have to be renewed as they expired.</p>
Vinnytsya	<p>Four public land plots with small gardens and trees and paved cover in front of one house (open trench), Tarasa Sycha lane</p> <p>One public land plot (parking area) on Tarasa Sycha lane, where open trench will be used</p> <p>One playground on public land, a part of it will be dismantled for open trench works (Tarasa Sycha street).</p>	<p>Agreements not signed yet.</p>
Ternopil	<p>14 privately owned land plots (9 owners), of which one belongs to a company, which will be used for open pits (to reduce impacts). A few land plots have small gardens on them or trees.</p> <p>One privately owned land plot, open trench</p> <p>Two public land plots, which will be used for open pits.</p>	<p>Agreements initially signed with most land owners, but will have to be renewed when the new dates for construction become known.</p>

A review of potentially affected areas, residential and/or commercial was carried out based on the site visit and a review of all routes in Google Earth. Table 4 below lists the key streets where impacts are expected, depending on the actual location (e.g. width of street) and the type of method which will be used.

Agreements for these types of impacts were not requested, except in Ternopil where such agreements were signed with one gas station and a car wash business. Streets where the works will be carried out along green public areas, or where the streets are wide, there is no housing, or where horizontal drilling or pipe in pipe method are used, are not included in the table below. Access impacts in such sections will be minimal (if any) and, with proper planning, can be completely avoided.

Table 4: Review of potential access issues (difficulties) for planned subproject components

City	Potentially affected areas
Zhytomyr	Open trench sections along Kakhovska street and Nahirnyi Lane; from 1-y Kryvvi Lane one narrow street that leads to the Teteriv river.
Vinnytsya	<p>Open trench section along Pokryshkina Street, continue on one section of Kostia Shyrotskoho street, Anatolii Svydnytskyy street; Open trench continues along Bohomol'tsya street, 1st Ukrain's'kyi Lane, Ushakova street and narrow street from Nahirna street to the Pivdennyi Buh River river.</p> <p>Difficult access for several houses on Tasara Sycha lane, because the street is very narrow and open trench method will be used.</p> <p>Difficult access for approx. 50 garages on Rodiona Skalets'koho street, the rest of the street construction will go through public green area along the street.</p>
Ternopil	<p>Temporary access difficulties are being avoided for one gas station and car wash business (with café).</p> <p>Access difficulties for residents of one Sadova street, approx. 21 houses, very narrow street; construction will last two months in that section.</p> <p>Potential access difficulties which can be avoided as the streets are wide: Polkovnyka Morozenka street, continues to P41, then P39 and through the main streets in Plotycha village and Ivachiv Dolishnii Village.</p>
Kolomya	Open trench, all along streets which are wide enough to prevent access difficulties.

The construction contractors will identify any particularly vulnerable individuals living and/or working along the subproject footprint during community level public consultation meetings with residents and businesses. Vulnerable individuals may include, for example, persons who need specialised access to their properties (e.g. individuals using wheelchairs or elderly) or persons who, due to health issues need close access for vehicles at all times (e.g. emergency services vehicles).

Risks of temporary interruptions of other utilities (e.g. water supply) may affect a wider population, primarily people residing or working along the entire pipeline routes (as shown in maps in Section 3.2), but also wider neighbourhoods. Specific businesses, highly dependent on certain utilities, will be affected to a greater extent with utility interruptions. For example, businesses more dependent on water supply include health related services (dentist offices), beauty or hair salons, cafés and restaurants, hospitals, etc. Because of this, such situations will be managed very carefully by the construction contractor.

Bypasses will be used wherever possible, to avoid water supply interruptions. Where this is not possible, water will be provided in special water supply vehicles (mobile water tanks) in affected areas. The contractor together with the Utility company will inform all consumers of water supply services who may be affected about possible problems (shutdowns, low pressure) caused by reconstruction works, how long they are expected to last and about the location of water supply vehicles that they may use until the regular water supply is re-established.

7 LEGAL FRAMEWORK AND GAP ANALYSIS

7.1 Laws of Ukraine

Compensation for damages caused to property and associated losses, can be sought in court, in accordance with the Civil Code of Ukraine from 16.01.2003 (Article 22). Losses include damages to property, the costs of restoring or repairing the property, as well as lost benefits and must be compensated in full. Compensation may be provided in cash or, at the request of the affected person, in kind.

Stakeholder engagement under Ukrainian law is organised during the project planning and environmental permitting process (if needed) and consists of disclosure of plans / documents and organisation of public hearings. The Law on Access to Public Information (January 2011) determines the procedures for exercising and securing the right of every person to access to information of public interest possessed by government agencies and other providers of public information.

7.2 WB Requirements

The WB Operational Policy 4.12 requires the development and implementation of a plan to address loss of income sources or means of livelihood caused by the involuntary taking of land or restrictions, associated with WB assisted investment projects.

The provisions of the policy relevant for this subproject include, but are not limited to, the following:

- livelihoods should be improved or, at a minimum, restored, including for affected people who have no recognizable legal rights or claims to the land they are occupying;
- special attention should be paid to disadvantaged and vulnerable groups who may be more adversely affected by displacement than others;
- a project specific grievance mechanism should be established to receive and address in a timely fashion concerns about displacement and livelihood restoration that are raised by displaced persons.

The above list is only a summary of the WB requirements in relation to involuntary resettlement and is qualified by reference to the full text of the applicable policy⁷.

7.3 Gaps Between Ukrainian Legislation and WB Requirements

With respect to these subprojects, the following gaps in Ukrainian legislation in comparison to WB OP 4.12 have been identified:

- The right to compensation of damages, including compensation for lost net income, according to national legislation, can be requested in court. However, the WB requires

⁷ The full text of OP 4.12 is available at:

<https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f89db.pdf>

from the client to consider all business losses and compensate those incurred as a result of the implementation of the subproject, at full replacement cost;

- Compensation of damages of formally registered businesses can be determined under national legislation, however compensation cannot be determined for any losses incurred by informal businesses, as is required by the WB;
- Paying special attention to impacts on vulnerable groups and addressing them, as required by the WB, is not required by Ukrainian legislation;
- The establishment of a Project specific grievance mechanism required by the WB is not foreseen under the legislation of Ukraine.

In order to overcome these gaps and comply with WB requirements, the Utility Companies will abide by principles and entitlements set out in this A-RAP. This will be adequately documented by the Utility Companies and the CPMU and will be subject to review by the WB.

8 LIVELIHOOD RESTORATION PRINCIPLES

Key principles committed upon by the Utility Companies in respect of livelihood restoration, which will be complied with in the implementation of this A-RAP, are:

- The use of privately owned land, as well as causing any losses, damages or economic displacement, will be avoided to the greatest extent possible;
- All potentially affected individuals/entities will be provided with adequate information throughout the implementation of the A-RAP;
- Additional assistance will be provided to vulnerable individuals;
- All livelihood restoration assistance will be provided equally to men and women;
- A grievance mechanism will be implemented through which all affected people can submit their complaints and grievances in relation to livelihood restoration or any other impacts resulting from land acquisition and restrictions on land use and expect a prompt response;
- All claims for losses caused by the project will be received and investigated in good faith by the Utility Company and, if found to be valid, will be compensated as agreed with the affected entity (the type/amount of compensation and deadline for providing it). All received claims and their investigations will be well documented and will be available for review at all times by the Ministry and the WB;
- Monitoring and reporting of all livelihood restoration activities and grievance management will be regularly carried out and reports will be submitted to the WB.

9 MITIGATION MEASURES AND COMPENSATION

9.1 Preventative Mitigation Measures

The use of any privately owned land plots will be agreed with the owners of the plots and agreements will be signed or permissions provided, as requested by the owners. Formal or informal users of any public land will be informed in advance of construction works, to not plant anything on the land before construction is completed. If, however, any crops, plants or trees have to be removed for construction, as well as if any damages occur to fences or asphalted surfaces, compensation will be provided to the owners of the affected assets, at full

replacement cost. All disturbed land will be restored to its previous condition upon completing construction. A photo log of the baseline conditions of affected areas and conditions following the completion of construction works will be provided in Utility Company reports.

The following measures to avoid and/or minimize disruptions of access to residential and business properties will be implemented by the construction contractors:

- creating safe vehicle and pedestrian crossings (e.g. over open trenches)
- ensuring alternative access to properties where possible
- organising construction works in smaller sections and shortening the length of construction works,
- organising, if needed, safe parking areas for residents and businesses whose access to properties (and garages) by vehicles may be impossible during construction
- implementing specific measures for any identified vulnerable individuals to ensure they have safe access to their properties.

The construction contractors together with the Utility company will also provide timely information to all affected residents and businesses about interruptions of utilities (shutdowns, low pressure) and when they are expected to be re-established. The construction contractors under supervision from the Utility company will also secure bypasses to avoid disruptions of the water supply, or alternative supply if needed (e.g. mobile water tanks for water supply interruptions) and will inform all affected residents and businesses about the locations where they can access the alternative supply, if applicable (e.g. the locations of the nearest mobile water tanks).

The construction contractors will develop and implement traffic management plans and will ensure timely information dissemination about changes in traffic through the media and other suitable communication channels.

The grievance mechanism will be implemented by the construction contractor and the Utility Companies, to ensure that grievances are addressed promptly and efficiently. The Utility Companies will request regular reports from contractors on grievance management and will periodically monitor how grievances are being managed. The consolidated report will be submitted to the Bank for review.

To avoid any other losses, the following measures will be implemented by the construction contractor:

- All land used during construction will be restored fully, to its previous condition, upon completing construction, including pavement on streets. A photo log of the baseline conditions of the roads and conditions following the completion of construction works will be created.
- Construction on any agricultural land will be carried out outside of the agricultural season to avoid damages to crops.
- Trees which will need to be removed before construction will be identified in coordination with the relevant local departments in charge of green areas and parks, avoiding any healthy trees wherever possible.
- Residents will be informed which trees will be removed and how they will be replaced. In case of grievances about the removal of trees grown by private

individuals, compensation (replacement of the tree or cash compensation) will be provided by the construction contractor.

9.2 Compensation of Losses

If despite all undertaken prevention / mitigation measures businesses experience substantial financial losses because of difficult access for their customers, difficulties for receiving or making deliveries, or because of construction nuisances such as interruptions of utilities (e.g. water supply), they will be able to submit claims for compensation of lost net income. If the claims are proved / established in accordance with Ukrainian legislation and WB OP 4.12, compensation will be provided by the Utility Company. The Utility Company will provide compensation in kind instead of cash (e.g. exemption from payments of communal or other fees) whenever possible, to the amount that adequately replaces economic losses.

Businesses will be able to submit claims using contact details for grievances, as described in Section 11.3 of this A-RAP. Claims will have to be substantiated by all available documentation to prove that losses have been incurred as a result of construction activities/nuisances. At a minimum, the businesses will have to submit their financial records for the previous 12 months, so that the Utility Company can compare their turnover during construction with the turnover in the same time period in the previous year, when there was no construction. Businesses will also be requested to state their proposals for the type / amount of compensation to mitigate their economic losses.

As committed upon in Section 8 of this A-RAP, the Utility Companies will aim to resolve all issues amicably, to avoid having to resort to judicial remedies. If the Utility Companies determines that the claim is valid, compensation will be provided in accordance with the agreement with the affected business (the type/amount of compensation and deadline for providing it). If the claim is not accepted by the Utility Companies, the claimant will be informed of the decision together with a justification and will be able to resort to the judicial system. All cases will be well documented by the Utility Companies and subject to review by the Ministry and the WB.

9.3 Development benefits

Specifically in Ternopil, in Sadova street, where 21 houses will be severely impacted during construction which will last for two months, the Utility company will, in cooperation with the City of Ternopil if necessary, offer to the residents a development benefit, as compensation. Possible benefits include connections of their houses to the public waste water network (which they currently do not have) or complete asphaltting of the street, when construction works are completed. The Utility company will meet with all residents before construction and seek their approval for the works, as well as agreement on the type of benefit that the residents would like to received. New ideas for development benefits may be proposed by the residents themselves. The approval for works and agreement on the development benefit will be submitted to the CPMU and the Bank, before the works begin.

10 INSTITUTIONAL ARRANGEMENTS

The overall responsibility for the implementation of the A-RAP lies with each Utility Company. However, a part of the activities, as presented in the A-RAP, will need to be

implemented by the construction contractor, whose performance will be monitored by the Utility Company, together with CPMU oversight.

The CPMU of the responsible Ministry has an obligation to periodically contact all Utility Companies and receive updates on any progress in relation to the implementation of the A-RAP, as well as to conduct monitoring site visits to construction areas and submit reports to the WB.

11 STAKEHOLDER ENGAGEMENT

11.1 Previous Information Disclosure and Consultation

In Zhytomyr, the Utility Company held meetings with three individuals whose privately owned plots will be affected by open pits and signed agreements with them. Public meetings for the project were held on 24 July 2017 in the assembly hall of the Utility Company and again on 22 August 2017. The ESMP was disclosed on the Company website and another public meeting to present it was held on 13 August 2019.

In Ternopil, the Utility Company met with owners of 14 privately owned land plots and signed initial agreements with them for the works. Meetings were also held with the local community councils where these land plots are located (Hai Hrechunsky village and Biletska village). However, new meetings will be held with the owners of the plots since previous agreements expired, when the new construction dates become known. The ESMP was disclosed on the Company website and a public meeting to present it was held on 16 October 2019.

In Kolomyia, the ESMP was disclosed and a public meeting was held on 9 October 2019, however in Vinnytsyia, this has not happened yet. Individual meetings with users of public land have also not been implemented yet.

All Utility Companies regularly inform their customers about all planned water supply interruptions by text messages, through social media, the town press center and in other ways, as described in detail in the ESMPs.

11.2 Information Disclosure and Consultation

This A-RAP has been published on the website of the Ministry of Regional Development, Construction and Communal Services of Ukraine (<http://www.minregion.gov.ua>), the WB website (<http://projects.worldbank.org>) and the websites of the Utility Companies:

- Zhytomyr (<https://vodokanal.zt.ua>),
- Vinnytsyia (<https://vinvk.com.ua>),
- Ternopil (<http://www.vodokanal.te.ua>),
- Kolomyia (<https://kpvodokanal.if.ua>),

The only outstanding ESMP for Vinnytsyia, will be made publicly available for review and comments and following that, a public meeting to present and discuss the document will be held.

Specifically, for the implementation of the A-RAP, at least two weeks prior to the beginning of construction, community level public consultation meetings will be held with residents and any business owners / operators in a particular section. Especially important meetings to be held are with:

- Four residents of Taras Sycha lane in Vinnytsyia, who have small gardens on public land
- Residents of a narrow street from Nahirna street to the Pivdennyi Buh River, in Vinnytsyia
- Owners and users of approx. 50 garages in on Rodiona Skalets'koho street, in Vinnytsyia
- Residents of Sadova street in Ternopil, approx. 21 houses, very narrow street, where construction will last two months
- Residents of one narrow street that leads from 1-y Kryvyi Lane to the Teteriv river, in Zhytomyr.

These meetings will be organised by the Utility company and construction contractors, however a representative of the responsible Utility Company will also attend. During these meetings, the construction contractors will discuss with affected people safe access to individual properties and agree how it will be organised, paying particular attention to any vulnerable individuals. The contractors will inform affected people about the planned start and end dates, as well as the subproject grievance management procedure (persons responsible for addressing grievances and their contact details). Notices will be put up in construction areas with that same information after the meetings. At the meetings, the Utility Companies will inform affected people about the availability of the A-RAP and ESMP for more detailed information and where and how they can be obtained (on which websites and at the Utility Company offices at a specific address, for hard copies).

In the location of Sadova street in Ternopil, due to the severity and length of impacts, the Public utility company will specifically require permission from all residents to carry out the works and an agreement on the development benefit that will be provided as compensation.

11.3 Grievance Management Procedure

Grievance management is an important component of effective stakeholder engagement. The purpose of a grievance mechanism is to provide a way for stakeholders to voice their concerns, queries and issues in relation to the subproject. This mechanism provides stakeholders with a direct channel through which their queries will be received and responded to, in a timely manner. In line with WB requirements, the grievance mechanism has to be accessible and understandable for all stakeholders. It must be communicated to all relevant stakeholders and implemented by the Utility Company and any subproject contractors, throughout the life of the subproject.

The objectives of the grievance mechanism are to:

- Provide accessible methods for all external stakeholders to contact the Utility Company and/or contractors;
- Ensure an effective, timely and reasonable approach for solving problems of stakeholders;
- Identify and monitor all possible stakeholder issues related to the subproject, to support effective stakeholder and risk management;

- Meet the requirements of national and international best practice.

Grievance Management Contact Details

In the process of A-RAP implementation, all affected or interested individuals are able to submit their grievances and suggestions directly to the construction contractor, the Utility Company or the Regional Project Management Unit (RPMU), using the following contact details:

Table 5: Grievance contact details for each city

City	Contractor details	Utility Company Details	RPMU
Zhytomyr	<p>Name of the company: LLC KSM GROUP</p> <p>Name of the contact person: Melnik Evhen</p> <p>Phone number: +38 (098)5088981</p> <p>email: dbvkm.ksm@gmail.com</p>	<p>Zhytomyrvodokanal Utility</p> <p>Utility Contact center: +38 (0412) 550 552 (0800) 752 553</p> <p>email: vodokanalzt@ukr.net</p>	<p>Name of the contact person: Vygovsky Bohdan</p> <p>Title: Head of Development and Modernization Department</p> <p>Phone number: +38(098) 0575723</p> <p>email: bogdannzt@gmail.com</p>
Vinnytsia	<p>Name of the company: LLC KSM GROUP</p> <p>Name of the contact person: Muravsky Andrii</p> <p>Title: Project engineer</p> <p>Phone number: +38 (067) 0973409188</p> <p>email: muravskiy.ksm@gmail.com</p>	<p>Vinnytsyaoblvodokanal Utility</p> <p>Utility Contact center +38 (0432) 53-72-85</p> <p>email: office@vinvk.com.ua</p>	<p>Name of the contact person: Korol Larysa</p> <p>Title: Economist of Category I of Procurement and Supply Department</p> <p>Phone number: +38 0432 53-73-98</p> <p>email: office@vinvk.com.ua</p>
Ternopil	<p>Name of the company: LLC Recovery Engineering Company “SPETSMONTAZHBUD”</p> <p>Name of the contact person: Pryschepa Pavlo</p> <p>Title: Project Manager</p> <p>Phone number: +38 (097)7131332</p> <p>email: odannb@gmail.com</p>	<p>Ternopilvodokanal Utility</p> <p>Utility Contact center (0352) 519751, 0 800 509909</p> <p>email: info@vodokanal.te.ua</p>	<p>Name of the contact person: Chornenkii Vasyi</p> <p>Title: Head of the Legal Department</p> <p>Phone number: +38(050)4374364</p> <p>email: info@vodokanal.te.ua</p>

Kolomya	<p>Name of the company: Consortium "Energoresurs-montazh" Ltd - PJSC "Lutsksantechmontazh No.536"</p> <p>Name of the contact person: Baran Mykhailo</p> <p>Title: Foreman</p> <p>Phone number: +38 (067) 6725478</p> <p>email: baranmm@ukr.net</p>	<p>Kolomyiavodokanal Utility</p> <p>Consumer Affairs Department: +380 (3433) 4-93-93 +38 (068)-777-06-92 +38 (095)-654-63-17 +38 (063)-434-76-98 +38 (098)-836-16-24</p> <p>email: kolomyavoda@meta.ua</p>	<p>Name of the contact person: Martunyk Galyna</p> <p>Title: Chief Economist</p> <p>Phone number: +38 (096) 7503256</p> <p>email: kolomyavoda@meta.ua</p>
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Grievances may also be submitted to the CPMU in the Ministry of Regional Development, Construction and Communal Services of Ukraine, using the following contact details:

Name of the contact person: Honcharova Anna
Title: Safeguard specialist
Phone number: 380 44 2071721
email: gon4arova.ann@gmail.com

Grievance Management Procedure

Each Utility Company and/or the CPMU will ensure grievances are responded to within a period of 30 days, in writing and, verbally if needed. Urgent grievances will be addressed by the construction contractor on site, in the shortest possible timeframe and recorded.

The person submitting the grievance should ensure that his/her contact details are included in the grievance, so that they may receive a response. Grievances may also be submitted anonymously, however, this could limit the Utility Company's/CPMU's ability to investigate the grievance and provide a response. Individuals who submit their queries or grievances also have the right to request that their name be kept confidential.

At all times, complainants are also able to seek legal remedies in accordance with the laws and regulations of Ukraine.

The designated GRM focal point at each Utility company will be responsible for grievance / appeals / complains handling. A GRM log will be maintained by each Utility company and submitted to the CPMU. A consolidated project level GRM log will be regularly submitted to the Bank for review and feedback.

12 MONITORING AND REPORTING

The Utility Companies will periodically carry out internal monitoring of the implementation of this A-RAP during construction and 12 months following completion of construction. Table 6 provides an indicative list of indicators which will be used for monitoring and the frequency at which the Utility Companies will provide reports to the CPMU. Inputs for the reports will have to be provided by the construction contractors.

Table 6: Indicative list of indicators for monitoring, source of information and the frequency of reporting.

Indicator	Source of Information	Frequency of Reporting
Agreements signed for the use of privately owned land plots and public land formally used (e.g. someone renting public land).	Subproject implementation reports	Quarterly throughout construction
Permissions signed for construction works in sensitive locations (e.g. in front of businesses, along narrow streets, etc.)	Subproject implementation reports	Quarterly throughout construction
Number of community level public consultation meetings held with residents and businesses, number of people attending, questions asked and issues raised, agreed measures, etc. Notices put up at construction sites.	Meeting minutes and reports, including photographs	Quarterly throughout construction
Number of received and number of approved compensation claims and types of compensation provided.	Subproject implementation reports	Quarterly throughout construction
Does compensation represent full replacement cost? Determine whether recipients of compensation were able to recover their economic losses.	Meetings / contacts with affected business owners or operators	Quarterly throughout construction and 12 months after.
Number and types of grievances received and how they were addressed / responded to. Number and types of outstanding or unresolved grievances.	Grievance management records	Monthly throughout construction and 12 months after.

13 BUDGET

The main resource needed for the implementation of this A-RAP is the engagement of several employees in the construction contractors' companies and the Utility Companies.

At the time of developing this A-RAP, it was not possible to anticipate how many compensation claims will be submitted or executed and in what amount. The compensation costs will be borne by the construction contractors or the Utility Companies, depending on the cause of damages and / or losses, according to the contract between these parties.

14 ANNEXES

Annex 1: Social screening check list

NOT FOR DISCLOSURE (Contains personal information)

Annex 2: Zhytomyr (Land Use Agreements)

Annex 3: Ternopil (Land Use Agreements)

Annex 4: Novovolynsk (Land Use Agreements)

Annex 5: Kropyvnytsky (Land Use Agreements)

Annex 1: Social Screening Checklist

Possible Involuntary Resettlement Impacts	Yes	No	Not known	Details
1. Has there been any previous land acquisition for the subprojects?	X			Yes, for works that were completed in Ternopil, Novovolynsk and Kropyvnytsky. Agreements for future land acquisition have been signed in Zhytomyr and Ternopil, but they will have to be renewed as the dates of the agreements expired.
2. Does the subproject require any land (public or private) to be permanently acquired (occupied) for the subproject?		X		None.
3. Does the subproject require any land (public or private) to be temporarily acquired (occupied) during construction?	X			Water supply and waste water pipelines are mostly placed through public land, under streets or along streets in public green areas or parks. In some locations, the open trench method is being used, in which the pipelines are placed. In other places, open pits will be made and horizontal drilling from pit to pit is being carried out, to create canals for installing the new pipeline. Open pits are also being used in locations where the pipe in pipe method is being used.
4. Will the subproject cause any physical displacement?		X		No.
5. Will people permanently or temporarily lose access to facilities, services, or natural resources?	X			Access to properties will be more difficult in locations where the open trench method of construction will be used than where horizontal drilling or pipe in pipe will be employed. Most of the properties along all subprojects footprints are residential and the most likely impact in a few locations is temporary loss of (or more difficult) access for vehicles to driveways and parking areas in front or back yards.
6. Is there any possibility of impacting businesses / commercial / livelihood activities of persons during constructions?	X			The affected areas are mostly residential and impacts on businesses (as a result of access difficulties) are expected to be minimal. As not all locations could be visited during the site visit, an additional review of streets and affected structures in Google Earth will be carried out.

7. Will there be loss of /damage to agricultural lands, standing crops, trees?	X			During construction, some agricultural land will be used, but only in a few places. Works there will be performed outside of the construction season, to avoid creating losses of crops. There are trees located in areas where land will be dug up (trenches and pits), which will be permanently lost. The exact trees which will be removed during construction have not been identified in all locations yet. Although the majority of trees are public property and have been planted on public land, some trees may have been grown by private individuals (e.g. some persons may have planted trees or other plants in green areas in front of their houses).
8. Will there be loss of income and livelihood?			X	Measures to prevent losses will be implemented, however it is not possible to determine whether they will be 100% effective. A mechanism for compensating lost net income will have to be implemented, in case of documented claims from affected businesses.
9. Will there be any impacts on vulnerable groups?			X	Data collection on all households / businesses individually along the project footprint is not feasible. Screening (during ‘corner’ public consultation meetings) for vulnerable individuals living and/or working along the subproject footprint should be carried out by contractors to identify if special measures are needed to ensure vulnerable people have safe access to their properties.
10. Has any stakeholder engagement been undertaken for the subproject?	X			<p>Engagement with directly affected people has been carried out in connection to signing of agreements with owners of land (and in a few cases users of public land) on which temporary construction activities will occur. For some subprojects and subproject components, joint meetings with affected people, which also involved the local authorities, were held by the Utility Companies.</p> <p>Engagement also occurred in cases of acquiring agreements and/or permissions from sensitive receptors in relation to difficulties in access to properties which could be caused by construction. In Ternopil, the Utility Company also provided information to recipients sensitive to water supply interruptions, such as hospitals and care facilities,</p>

				<p>which also acknowledged the information and provided their agreements/permissions.</p> <p>ESMPs were publicly disclosed for all subprojects except for Vinnytsya.</p> <p>The most efficient form of meetings for projects of this type are small ‘corner’ public consultation meetings with people in a particular construction section, several weeks ahead of construction in that section.</p>
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