

PREVENTION OF HAZARDS ASSOCIATED WITH SHIPWRECKS AND CHEMICAL WARFARE AGENTS ACCUMULATED ON SEABED AS A TASK OF PUBLIC ADMINISTRATION – THE CASE OF POLAND

Prof. Marek Górski, hab. Ph.D.

Institute of Legal Sciences at the University of Szczecin

e-mail: marek.gorski@usz.edu.pl; <https://orcid.org/0000-0003-0708-0739>

Summary. This paper elaborates on the tasks of the public administration regarding the counteraction of risks and hazards associated with shipwrecks (in particular, the fuel contained therein) and containers with chemical warfare agents accumulated on the bed of the Baltic Sea within the area under Polish jurisdiction. The main aim of the paper is to determine which tasks specifically rest on the public administration in this respect, and on which legal grounds they should be executed. The analysis refers predominantly to the acts of Polish internal law, but it also considers the larger framework of international agreements and the European Union law. The conclusions drawn point to the need to supplement the regulatory provisions and marine and emergency response management systems for marine and coastal pollution events.

Key words: threats to the Baltic Sea marine environment, shipwrecks and chemical warfare agents on the seafloor, public administration tasks with regard to counteracting threats to marine environment

1. SCOPE OF THE PAPER

Environmental hazards of the Baltic Sea caused by shipwrecks and chemical warfare agents resting on seabed have been long studied by joint efforts of both international¹ and national experts.² The provisions of international law with regard to the Baltic Sea, in particular the so-called Helsinki Convention³ serve as a basis for research aimed to identify hazards and establish preventive or remedial actions. Reports prepared on the basis of such research⁴ underscore the gravity of

¹ The Baltic Marine Environment Protection Commission (HELCOM) appointed the Expert Group on Environmental Risks of Hazardous Submerged Objects to produce the Draft HELCOM Thematic Assessment on Hazardous Submerged Objects.

² E.g. research conducted by the Maritime Institute in Gdansk (MIG) whose findings are referred to in this paper.

³ Convention on the Protection of the Marine Environment of the Baltic Sea drawn up in Helsinki on 9 April 1992, Journal of Laws of 2000, No. 28, item 346.

⁴ See e.g.: 1) reports drawn by the Expert Group set up by HELCOM – Report to the 16th Meeting of Helsinki Commission 8–11 March 1994 from the Ad Hoc Working Group on Dumped Chemical Munition (HELCOM CHEMU); January 1994; Danish Environmental Protection Agency; 2) Chemical Munitions Dumped in the Baltic Sea; Report of the ad hoc Expert Group to Update and Review the Existing Information on Dumped Chemical Munitions in the Baltic Sea (HELCOM MUNI); Baltic Sea Environment Proceedings No. XX, HELCOM 2013, ISSN 0357-2994; 3) HELCOM

potential hazards, and concurrently, their complex nature implied by several factors – lack of accurate data about the time and location of submerged substances, relocation of objects, risks related to potential extraction of objects, in particular the warfare chemical agents dumped at sea directly after WWII and during the cold war. The above reports recommend that at present special emphasis should be put on monitoring and preparation of contingency plans. This implies that the state's internal organs responsible for execution of these tasks should be clearly determined and the tasks specified, which should be followed by establishing the rules of supervision over completion of the said tasks. Polish internal regulations are not explicit in this matter, which gives rise to the usually counterproductive competence disputes, a fact that evidently affects the efficacy of execution of the state's international commitments. Polish internal regulations should be analyzed from this very perspective to allow a better transposition of the requirements of the Helsinki Convention, and thus, a better cooperation of competent organs with their counterparts in other Baltic states so as to carry out the required actions. Nonetheless, the paper does not encompass comparative studies focused on how the issue being the subject of this paper is handled in other member states since such a comparison is beyond the scope of this paper. Naturally, such comparative studies would be desirable and of great interest.

The primary aim of the paper is to determine which institutional bodies of the Polish public administration are obliged to take preventive actions with regard to risks and hazards associated with shipwrecks (in particular, the fuel contained therein) and containers with chemical warfare agents (CWA) located on the sea-floor. The secondary aim is to determine the kind of tasks that rest on public administration in this regard and the legal basis thereof. Once these questions are answered, the author shall be in a better position to assess whether the regulation of these issues by law is complete and whether the organizational systems set in place by regulations ensure effective emergency response.

In order to realize the research goals, a number of issues must be considered. However, given the scope of this paper (i.e. analyses of applicable legal regulations and organizations set in place and public administration tasks), that must be limited narrowed down to establishing the most vital content: 1) the legal status of substances and objects located on the seabed and potential hazards they may cause; 2) the legal basis of the potential obligation to remove the sea-dumped substances and objects, as well as the subjective scope of this obligation; more broadly, the obligation to monitor potential consequences of their retention in the sea; 3) the role of individual public administration authorities in the enforcement or possible performance of the designated obligations.

The study refers to obligations and tasks executed by Polish internal administrative bodies in the marine area under the Polish jurisdiction, thus it is primarily

based on the analysis of Polish legal regulations, but to the extent necessary, it also considers regulatory requirements under the EU law. The author shall refrain from tackling the issue of joined actions undertaken by Polish authorities with other member states outside the Polish marine area, though it is an equally important issue from the perspective of the overall aim of providing comprehensive (integrated) protection of the Baltic Sea marine environment. The issue of obligations stemming from the provisions of international law will be tackled here only to the extent necessary to the subject matter of this paper.

2. HAZARDS CAUSED BY SHIPWRECKS AND CHEMICAL WARFARE AGENTS ACCUMULATED ON THE SEABED

The subject examined herein actually covers two separate issues which intersect and overlap as it comes to hazards to marine environment and human health. Hazards caused by shipwrecks lying on seabeds are primarily associated with the fuel they contain and the risk of spills resulting in sea contamination referred to as oil pollution hazards, the scope of which depends mostly on the amount of fuel stored in the submerged shipwreck. The second hazard relates to the type of cargo that remains trapped in the shipwreck, and the types vary a lot. In general, such hazards occur in consequence of marine accidents or military actions. As it comes to the latter, it must be emphasized that the WWII shipwrecks submerged in the Polish marine area most likely contain large amounts of fuel, and can be counted in dozens. The location of some shipwrecks is known and field surveys have been conducted, also with the use of funds from target programs. This refers to, e.g. the Franken shipwreck, a large tanker examined by the Maritime Institute in Gdansk⁵ [Hac and Dembska 2018]. The research suggested various methods of securing the shipwreck, but also articulated significant technical challenges that would have to be overcome and the huge costs involved – in reference to this single object, the costs of securing of the shipwreck site came to 6–8 mln euro [ibid., 69]. Research was also conducted on the Stuttgart vessel in the Bay of Puck aimed to assess the potential impact of the fuel it contains on marine resources [Rogowska, Kudłak, Tsakovski, et al. 2015, 1797–807]. The conclusions emphasized potential hazards of fuel spills, the probability of which increases as time passes and progressive corrosion takes place, especially in regard to the location of the shipwreck, that is the in the Bay of Gdansk which is severely polluted also by other sources, is close to the coast and the metropolitan area of Tri-city [ibid., 1806].

The hazards discussed hereinabove are less challenging than the next ones to be discussed, i.e. shipwrecks with CWA in the sense that the potential source of danger, and the impacts of oil spills and counteracting methods are relatively well-researched. However, with regard to chemical warfare agents dumped at sea,

⁵ Under the project “Reduction of the negative impact of oil spills from the Franken tanker wreck” funded by the Baltic Sea Conservation Foundation.

the issue becomes more complicated on every front. Large amounts of CWA were dumped straight after WWII and also later, prompted by the change of war doctrine and works on international regulations prohibiting the production and use of CWA.⁶ For obvious reasons, the places of sinking of chemical ammunition and CWA containing tanks were kept confidential and till this very day there is no knowledge of any official documentation, provided that it had ever existed. Moreover, knowing the dumping location does not suffice either as tanks or containers are relatively lightweight objects, easily moved around by the sea. The total number and location of deposited chemical warfare waste is thus only roughly estimated.

The hazard discussed herein is of course known also in the legal literature (e.g. international attempts have been made to identify their distribution and problems they might generate) [Greenberg, Sexton, and Vearrier 2016, 79–91]. K. Korzeniewski extensively reviewed the existent research regarding the location of and threats posed by CWA to the Baltic Sea in late '90s [Korzeniewski 1999, 83–103]. In the years 2007–2013 CHEMSEA,⁷ a massive hydroacoustic survey was conducted, funded by the European Regional Development Fund under the Operational Program “Baltic Sea Region Program,” which gathered information on the locations of dumps, their type and condition of sunken chemical munitions, as well as its response to the sea environment. The follow-up studies based on the data collected underscored that the munitions containing CWA are more dispersed over the seafloor than initially expected (in most likelihood, due to strong sea currents and weather conditions), and that the polluted area is much larger than foreseen in theoretical models; also, possible impact on marine organisms was indicated [Beldowski, Klusek, Szubska, et al. 2016, 85–95]. The findings underpinned that the research of living resources indirectly point to the existence, in some regions (i.a. the Bornholm Basin), of toxic warfare waste dumpsites [Czub, Kotwicki, Lang, et al. 2018, 1485–497]. This issue had already been raised before by other researchers who emphasized that fish living within the CWA pollution radius are endangered [Sanderson, Fauser, Thomsen, et al. 2008, 846–57], which translates into significant potential human health hazard, in particular caused by arsenic leaked and dispersed in the Baltic Sea [Idem 2009, 416–22]. There are also other studies revealing that elevated content levels of arsenic, which was a persistent constituent of CWA, were found in locations identified as potential

⁶ First such regulation was the Geneva Protocol of 17 June 1925 for the prohibition of the use in war of asphyxiating, poisonous or other gases and of bacteriological methods of warfare (Journal of Laws of 1929, No. 28, item 278) which was so effective that during the WWII such warfare was used only incidentally, though quite large amounts were produced. At present, the basic act in this respect is the Convention of 13 January 1993 on the prohibition of the development, production, stockpiling and use of chemical weapons and on their destruction, drawn up in Paris (Journal of Laws of 1999, No. 63, item 703); it took over 30 years to develop the Convention (works started in mid-'50s).

⁷ Available at https://ec.europa.eu/regional_policy/pl/projects/finland/chemsea-tackles-problem-of-chemical-munitions-in-the-baltic-sea [accessed: 14.09.2020].

CWA dumpsites [Szubska 2018, 111–31].

The above remarks, though general, point to the significance of the toxic warfare waste, in particular in the context of actions that aim to identify and counteract the problem. The research that is being conducted reveals that the issue must be solved particularly with regard to CWA, since an impromptu retrieval of this waste from seabed would be counterproductive and with serious consequences for marine environment.⁸ Researchers also underline that the neutralization of the retrieved ammunition or containers with CWA poses a huge organizational, technical and financial challenge [Tychinin and Kosterin 2000, 245–46]. Therefore, it is worth investigating how the issues of tracking the location of CWA settled on the seabed, preparing of and implementing emergency plans in the event of CWA leakage into the marine environment have been regulated under the Polish law.⁹

3. REQUIREMENTS ARISING FROM INTERNATIONAL LAW

As indicated above, the main act of international law that tackles, although only implicitly, the issues being the focus of this paper is the Helsinki Convention, i.e. the Convention on the Protection of the Marine Environment of the Baltic Sea drawn up in Helsinki on 9 April 1992, as amended; the Convention replaced the original Convention of 22 March 1974 on the Protection of the Marine Environment of the Baltic Sea Area signed in Helsinki.¹⁰ Poland ratified the present Convention in 1999,¹¹ although formally it has not ratified the changes made to it after the ratification date (concerning, i.a. Annex VII, a fact pertinent to the subject analyzed herein). Nonetheless, the Convention constitutes part of the European Union law and as such is binding for all member states to the extent the EU itself is bound by the Convention. However, Poland has not ratified the Nairobi Convention of 2007 on the Removal of Wrecks resting on the seabed which entered into force in 2015.¹²

In light of the scope of this study, focus should be drawn to Art. 11–13 of the Helsinki Convention and the aforementioned Annex VII. First come obligations imposed on the states being the parties to the Convention which include pro-

⁸ These matters were raised in particular in reports as part of CHEMSEA program; see the aforementioned HELCOM Expert Group on Environmental Risks of Hazardous Submerged Objects, Introduction to Draft HELCOM Thematic Assessment on Hazardous Submerged Objects; 19 October 2018.

⁹ This part of the paper, i.a. draws on the expert opinion developed by the author for the Supreme Chamber of Control which has been implementing a control program regarding the subject issue since 2019.

¹⁰ Journal of Laws of 1980, No. 18, item 64; for a comprehensive analysis of this agreement and issues relating to its transposition into Polish internal law see Górski 1987, 127.

¹¹ Government statement on ratification of 29 December 1999, Journal of Laws of 2000, No. 28, item 347.

¹² Nairobi International Convention on the Removal of Wrecks, 17 May 2007; United Nations Treaty Collection No 55565; <https://treaties.un.org> [accessed: 14.09.2020].

hibition of dumping (Art. 10) which corresponds to the UN Convention on the Law of the Sea (Art. 210).¹³ Secondly, there is the obligation to take all measures in order to prevent pollution of the marine environment resulting from activities conducted on the seabed and its subsoil (Art. 12 – and respectively, Art. 208 Convention on the Law of the Sea). The third element is the obligation to notify other states about pollution incidents and to conduct consultations with a view to combat such pollution (Art. 13), which corresponds to the provisions of Annex VII and the implied obligation to monitor potential marine pollution. In the context of the focus of this paper, the latter obligation is particularly significant as Annex VII sets certain obligations to the states. As a side note it is worth adding that the main body of the Helsinki Convention does not include provisions parallel to section 4, Part XII of the Convention on the Law of the Sea (Art. 204–206) which expressly regulate the monitoring and notification obligations.

In general, Annex VII is dedicated to the obligations of states regarding their response to incidents of pollution. It specifically details these obligations, including the state's readiness to respond to pollution incidents (including the provision of adequate equipment, ships and manpower prepared for operations at sea and on the shore), the drafting of contingency plans (national, bilateral or multi-lateral plans in cooperation with other states), determination of the so-called response regions, preparation of reporting procedures and ensuring the state's ability to take immediate action in response to confirmed pollution incidents. These obligations should be laid down in the internal law of the state in an unequivocal manner and assigned to specific organs. It is worth noting that the Annex foresees undertaking of the required response operations in accordance with the HELCOM manual¹⁴ in which Poland pointed to the directors of Maritime Offices and the Maritime Search and Rescue Service as the organs responsible for the execution of the aforementioned operations. The extent to which this solution is tied to applicable regulations will be assessed in the further part of the paper.

Having outlined the obligations of states stipulated in the Convention regarding protection of the sea from pollution caused by objects or substances submerged in the sea and resting on seabed, it must be emphasized that international regulations do not expressly address the objects or substances that had been dumped in the sea before the regulations came into force. In other words, the regulations impose an obligation to monitor and respond to incidents threatening the marine environment, but they do not establish the obligation to remove objects or substances submerged in the sea prior to the date of entry into force.

Assessment of the ability to meet the obligations imposed by the Convention on the contracting parties and guaranteed by internal law also requires a reference

¹³ United Nations Convention on the Law of the Sea drawn up in Montego Bay on 10 December 1982, *Journal of Laws* of 2002, No. 59, item 543.

¹⁴ HELCOM Manual on Co-operation in Response to Marine Pollution within the framework of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention); Volume 1; Original September 2001 (last updated June 2019).

to internal regulations that define more precisely the concepts defined rather broadly in the Convention. This need for more clear cut definitions applies in particular to concepts that have a bearing on the content of individual obligations and determination of entities (including state organs) responsible for their execution. Internal law should provide precision and conceptual determinacy as it comes to such concepts as “pollution” defined broadly by Art. 2.1 Convention or “waste.”

4. LEGAL STATUS OF SHIPWRECKS AND CONTAINERS WITH CHEMICAL WARFARE AGENTS ON THE SEAFLOOR

1. In the Polish internal legislation, there is no regulation explicitly determining the legal status of shipwrecks and CWA containers submerged in the sea. However, the matter is pretty evident – from the point of view of the Act on waste,¹⁵ the objects and substances contained therein should be considered waste. According to the definition provided in Art. 3, sect. 1, point 6 of the above Act, rooted in the EU regulations, i.e. the Framework Directive on waste,¹⁶ “waste is every substance or object which owner disposes of, intends to dispose of, or to which disposal the owner is obliged.”

The key criterion of this definition is the meaning of “disposal” since an object becomes waste once its owner disposes of it. Such “disposal,” in line with the interpretations adopted in the EU law¹⁷ and the case law of EU courts,¹⁸ admittedly, it cannot be interpreted solely as a loss of control over an object, but in the examined situations it is all about it. As it comes to objects in the form of sea-dumped shipwrecks and CWA containers, the act of discarding had taken place which undoubtedly falls within the notion of “disposal.”

Some doubt may be caused by the fact that neither shipwrecks, nor containers with toxic warfare agents have been explicitly listed under a separate category with a specific code assigned to it in the European Waste Catalogue.¹⁹ This, however, is not that significant since the methods of waste classification set in the Regulation allow for solving this dilemma. It appears that, nonetheless, the said ob-

¹⁵ Act of 14 December 2012 on waste, Journal of Laws of 2020, item 797 as amended [henceforth cited as: the Act on waste].

¹⁶ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, OJ L 312, 22.11.2008 [henceforth cited as: Directive 2008/98, Framework Directive], 3; recently amended by the Directive 2018/851/EC of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste.

¹⁷ Ibid.

¹⁸ Judgement of the Court (Third Chamber) of 18 December 2007 – Commission of the European Communities v Italian Republic (case C–263/05); OJ C 51.

¹⁹ Regulation of the Minister of the Environment of January 2020 on the catalogue of wastes, Journal of Laws item 10 [henceforth cited as: the Waste Catalogue].

jects are commonly classified as waste in regulations²⁰ and practice. The term “shipwreck” does not appear *per se* in the Act on waste but, as a matter of fact, it can be treated as a synonym of a “ship which constitutes waste,” although it does not necessarily exhaust the term since it encompasses vessels that have completely lost their fitness for purpose and have been ditched. On the other hand, a “ship which constitutes waste” is commonly understood, in line with the definition of waste, as a vessel that is subject to “disposal” in the sense of this definition and one that requires management as waste even if it has not become unusable. Provisions of the regulations 1257/2013²¹ on ship recycling refer predominantly to such ships, the case of which is beyond the scope of this paper. It is relatively easy to identify an entity responsible for the recycling of such abandoned ships, whereas in case of shipwrecks abandoned many years back, it is a huge challenge. The situation is similar in the case of containers with chemical warfare agents – if these are agents whose use was discontinued by the military or other entities, they constitute waste as they fulfill the criterion of “disposal.” The subject of discussion here are CWA containers discharged into the sea, and thus, no entity responsible for such disposal, and thereby, transforming into waste, cannot be unanimously identified. These issues are elaborated on in the next point.

2. For the sake of precision, it should also be mentioned that Art. 77 of the Water Law²² prohibits discharging of waste into the sea, and any violation of this prohibition constitutes an offence subject to a penalty (Art. 478). In the situation analyzed, this sanction may seem completely inadequate with reference to potential impacts; however, the provisions of the Penal Code may also be applied²³ which regulate such environmental crimes as extensive environment pollution (Art. 182 and the qualified offence from Art. 185) or improper waste disposal (Art. 183 and qualified offence from Art. 185).

3. Next, it should be emphasized that there is an entire body of regulations and prohibitions on waste discharges from ships at sea, including international regulations²⁴ and internal law,²⁵ which by principle prohibit dumping of waste in the sea, including waters under the jurisdiction of coastal states. Supervision over compliance with these laws rests in the hands of the directors of the Maritime

²⁰ E.g. there is an explicit ascertainment in the Regulation 1257/2013 that ships are waste (thesis 1 of the preamble – “ships which constitute waste”); in the interpretation of the law on waste management, recycling is a form of waste management.

²¹ Regulation (EU) No. 1257/2013 of the European Parliament and of the Council (EU) of 20 November 2013 on ship recycling and amending Regulation (EU) No. 1013/2006 and Directive 2009/16/EC – OJ L 330.

²² Act of 20 July 2017 Water Law, Journal of Laws of 2020, item 310 as amended [henceforth cited as: Water Law; WL].

²³ Act of 6 June 1997, the Penal Code, Journal of Laws of 2019, item 1950 as amended.

²⁴ In particular, the Convention on prevention of maritime pollution by dumping of waste and other matter, drawn up in Moscow, Washington, London and Mexico City on 29 December 1972 (Journal of Laws of 1984, item 46 and 1997, item 300).

²⁵ Act of 16 March 1995 on prevention of pollution from ships, Journal of Laws of 2017, item 2000.

Offices,²⁶ whereas the Polish Maritime Search and Rescue Service (SAR), acting on the basis of the Act on maritime safety,²⁷ is responsible for counteracting hazards and marine pollution. The regulations apply to currently arising threats, and do not apply to the threats arising in result of past actions.

4. Another issue to be tackled are the rules of how to proceed with “waste resulting from accidents,” the term being defined in Art. 3, sect. 1, point 13 of the Act on waste, which are, in turn, based on specific rules set out in this very Act, section 6 headed “Waste resulting from accidents,” and placed in section 7. Pursuant to the definition worded in Art. 3, sect. 1, point 13, “waste resulting from accidents” is waste that is a byproduct of a rescue or firefighting action, to the exclusion of: a) waste arising from a major breakdown or major industrial failure in the understanding of Art. 3, point 23 and 24 of the EPL [L-5]; b) waste arising from environmental damage referred to in Art. 6, point 11 of the Act on preventing environmental damage.²⁸

The definition of „waste arising from accidents” sparks a controversy regarding the question of which post-accident waste has the nature of “waste arising from accidents” – i.e. whether this also includes waste directly resulting from an accident or only the waste generated by performance of rescue or fire fighting operations. This controversy is related to the linguistic connotations of the wording used in the definition “waste arising from the performance of an operation [...]” which suggests a limitation on the notion to such waste only. It seems, however, reasonable to adopt the argumentation of W. Radecki provided in the commentary to the provision of Art. 101 Act on waste which argues for a broader understanding of the definition [Danecka and Radecki 2020, 117–28].

This issue is quite significant to the subject of this paper which explores waste arising from maritime accidents. The key issue here is to ascertain that in the case of shipwrecks and CWA containers we are also dealing with “waste arising from accident.” Thus, not only the substances and objects resulting from the execution of rescue operations (being a result of actions taken under such operation) would be considered waste, but also substances and objects transformed into waste during a rescue operation (e.g. transported by ship, elements of the ship’s equipment or the ship itself). In case of post-accident waste that cause marine pollution, the owner of the ship that caused the production of waste is considered the perpetrator of the accident provided that the ship can be identified in accordance with Art. 101, sect. 2 of Act on waste. If the protection of human life, health or the natural environment so requires, the director of Maritime Office, having competence over the area where waste arose, may oblige the perpetrator of accident to manage such post-accident waste, which can also imply the obligation to transfer the waste to the indicated owner of waste.

²⁶ Ibid. chapter 4; State administrative bodies vested with the task of marine area management.

²⁷ Act of 18 August 2011 on maritime safety, Journal of Laws of 2019, item 1452.

²⁸ Act of 13 April 2007 on the prevention of damage to the environment and its remediation, Journal of Laws of 2019, item 1862 as amended [henceforth cited as: the Act on environmental damage].

5. LEGAL BASIS OF THE OBLIGATION TO REMOVE INDICATED SUBSTANCES AND OBJECTS FROM THE SEABED

1. Pursuant to the Act on waste, waste must be managed by the producer or next owner thereof (Art. 27, sect. 1); however, in the situation when waste is accumulated on a site not designated for waste collection, it should be removed from that site and managed (Art. 26). As a rule, this obligation lies on the owner (Art. 26, sect. 1) and it should be executed, also as a rule, by the commune administrator (Art. 26, sect. 2). In the event when the entity obliged to remove waste cannot be determined, the presumption of ownership comes into play (Art. 3, sect. 1, point 19) – this obligation should be enforced against the entity that has authority over the land where waste was accumulated (holder of legal title to the real estate – Art. 3, point 44 EPL). Since September 2019, the provisions of the law foresee also an extraordinary mode of waste removal (Art. 26a), which should be applied in case of exceptionally hazardous waste [Górski 2019, 18–19]. As presented hereinabove, special rules apply in case of waste arising from accidents.

2. In case of waste on the seabed which cannot be traced to any entity responsible for management of this waste (removal from seabed understood as land not intended for waste storage) it should be deemed that the obligation of its removal rests on the Minister of Maritime Economy. As implied by the provisions of Water Law, ownership of land under water is assigned to the owner of water (Art. 216, sect. 1), whereas ownership rights to sea waters²⁹ are assigned to the State Treasury (Art. 211). On the other hand, pursuant to Art. 212, sect. 1, point 2, ownership rights of public waters being the property of the State Treasury are executed, with regard to territorial and internal sea waters, the Minister of Maritime Economy.

To probe into it further, with regard to seabed waste it should be acknowledged that there are no legal grounds to apply the provision of Art. 26, sect. 2 Act on waste, i.e. enforce the obligation to remove waste accumulated on seabed set out in the decision issued by the commune head. The reason is that the commune heads' territorial competence do not extend to marine zones. This issue is not resolved by the Act on waste, therefore it must be assumed that the said obligation should be performed by virtue of the act, with no possibility to apply any enforcement measures. For obvious reasons, it is not a circumstance significant to the obligation itself, considering the constitutional obligation of public authorities to act in compliance with the principles of sustainable development (Art. 5 of the Constitution of the Republic of Poland of 1997). These remarks would also be relevant to the aforementioned ordinary mode of waste removal, as in the provisions of Art. 26a Act on waste the legislator did not foresee the cases explored in this paper.

In the context of the study subject, i.e. potentially hazardous objects that beca-

²⁹ Of course, located within Poland's jurisdiction.

me waste a few decades ago, a more pertaining question refers to the application of the currently applicable provisions of the Act on waste to this very type of waste. It should be noted that parallel regulations were also in force as per the former Act on waste of 2001,³⁰ put into force on 1 October 2001, though specific legal formulation was lacking in the previous regulations on waste handling, i.e. Act on waste of 1997,³¹ the 1980 Act on nature conservation.³² Hence, the obligation to remove waste dumped illegally on land is a legally binding obligation in the Polish legislation since 1 October 2001, and the only question to be posed is whether this obligation refers to all kinds of waste, regardless of the actual time when they were dumped in a given location, or only to waste dumped after the indicated date. Admittedly, already the provisions of Art. 53 of the 1980 Act on nature conservation³³ stipulated the obligation to manage waste, to use the present day terminology; waste was to be stored only in landfills designated in master plans, it was prohibited to dump waste in other sites, however, the obligation to remove waste from such undesignated sites was not explicitly formulated. Putting the analysis of these solutions aside, the obligation to remove waste from illegal dumping sites could have been implemented on 1 September 1980 at the earliest, as this is the date the Act of 31 January 1980 was put into effect, and so the obligation to remove waste would refer to waste accumulated after that very date. Nonetheless, prior to that, this issue remained practically unregulated. Yet, the author believes that in accordance with the general principle of non-retroactivity of the law, the obligation to remove illegally dumped waste from lands, including sea-floors, is in force since the date of the Act on waste³⁴ entering into force, that is since 1 October 2001. Given the above, the obligation to remove waste dumped at sea cannot be derived from the regulations on waste management implemented prior to this date.

3. In consequence, one should examine whether the waste removal obligation does not stem from other regulations, starting with, first, the regulations on preventing and removing environmental damages, i.e. the Act on the prevention of damage to the environment and its remediation.³⁵ Provisions of this act, in particular provisions of Art. 16, are potentially, from the point of view of search for legal basis for, in particular, implementation of preventive measures in the event of direct environmental damage hazard, sound promising, though their practical applicability is very limited. First of all, it's due to the fact that Art. 4, sect. 1 precludes the application of the act if the emission or event resulting in direct envi-

³⁰ Act of 27 April 2001 on waste, Journal of Laws of 2010, No. 185, item 1243 as amended.

³¹ Act of 27 June 1997 on waste, Journal of Laws of 1997, No. 96, item 592 as amended.

³² Act of 31 January 1980 on nature conservation and environmental planning, Journal of Laws of 1994, No. 49, item 196 as amended.

³³ *Ibid.*

³⁴ Act of 27 April 2001 on waste, Journal of Laws of 2010, No. 185, item 1243 as amended.

³⁵ Act of 13 April 2007 on the prevention of damage to the environment and its remediation, Journal of Laws of 2019, item 1862 as amended [henceforth cited as: the Act on environmental damage].

ronmental hazard or damage took place more than 30 years ago;³⁶ this severely limits the possibility of analyzing how these regulations were applied in the said situations. Secondly, with regard to potential or incurred damages that arose from actions executed after the date indicated, a significant limitation exists in the form of the principle set out in Art. 1, sect. 1, point 1 which provides that the provisions of the act shall be applied to direct environmental hazard or environmental damage caused by “an activity of an entity using the environment which creates a risk of damage to the environment;” all elements of this criterion³⁷ have been precisely defined in the act, which results in a significant limitation in the application thereof. For the situations analyzed herein this would imply the need to prove that the submerging of waste was the effect of the “activity of an entity using the environment,” thus activity falling into the scope regulated by the Act on waste, in particular in the context of the obligation to acquire a permit,³⁸ adversely affecting the environment within the scope specified in the definition of the concept of “damage to the environment” (Art. 6, sect. 11 Act on environmental damage). However, a provision specified in Art. 2, sect. 1, point 2 broadens the applicability of the Act on environmental damage, as it states that the provisions should also be applied to damages resulting from other activities creating a risk of damage (in the understanding of Art. 3) conducted by an entity using the environment if the activity concerns protected species or habitats and the damage has arisen through the fault of an entity using the environment.

Considering all of the above, Art. 16 of the Act on environmental damage all the same provides ample opportunity to act in the situations specified therein, which may have significance for the issues analyzed in this paper. This stems, in the first place, from the assumption adopted in Art. 16, sect. 1 which reads that the environment protection authority is obliged to take preventive or remedial measures in a situation when it is not feasible to identify the perpetrator of the action that may result or results in environmental damage. Second, the obligation rests on the authority when “in circumstances of threat to human health or possibility of irreversible damage to the environment, such measures need to be taken promptly” (Art. 16, sect. 2). The authority competent is the regional director of the environment protection authority, which in reference to marine environment waste sparks some confusion over the competences.

4. Nevertheless, it seems that the broadest legal basis for waste management obligation in general, and in particular prevention measures, is provided by the provisions of the WL on the protection of quality of waters.³⁹ General rules of

³⁶ Since the date of the Act’s entry into force, i.e. 30 April 2007.

³⁷ In particular such notions as “entity using the environment,” “damage to the environment,” “activity creating a risk of damage to the environment;” the former was formulated by reference to the definition used in the EPL.

³⁸ Construction of the concept of “activity creating a risk of damage to the environment” (Art. 3 Act on environmental damage).

³⁹ It must be underscored here that pursuant to Art. 3 Water Law Act, the provisions of this act fully apply to Island and internal sea waters (including, e.g. the Bay of Gdansk), and to territorial sea wa-

water protection against pollution (the so-called quality protection) with regard to inland and internal sea waters are set out primarily in para. 1 of the 3rd section of the Act and relevant implementing acts. In an attempt to recapitulate the essence of these solutions, they have been narrowed down to the following points: 1) the aim of water protection is to achieve the environmental goals for given “uniform bodies of surface waters”⁴⁰ (Art. 51, sect. 1); 2) environmental goals are understood as – securing and maintaining good-quality of waters, including their good ecological status or good ecological potential, and good chemical status of surface waters, – achieving the objectives set out in the regulations based on which protected areas were established, – prevention of deterioration of water quality and aquatic ecosystems, and other ecosystems dependent on waters (Art. 55, sect. 1); 3) environmental goals are set separately for individual categories of uniform parts of waters in the Water Law Act as a rule; 4) classification of individual uniform bodies of waters in water categories is based on criteria indicated in the Water Law and conducted assessments is performed in the River Basin Water Management Plan; 5) at present, environmental goals have been specifically defined in the KJCW regulation⁴¹ through provision of quality criteria for the classification of ecological status, chemical status and ecological potential for individual types of “uniform bodies of surface waters;”⁴² 6) environmental objectives regarding specific uniform bodies of surface waters are set in the River Basin Management Plans based on assessment of water quality and its purpose, and updated every 6 years (Art. 55, sect. 2); 7) environmental objectives with regard to reducing discharge of sewage into water bodies should be achieved through compliance with the principle set out in Art. 78 WL (sewage released into waters or grounds as part of the normal use of water or water services should be treated to the extent required by law – which first and foremost translates into fulfilling the obligation of complying with permissible threshold values for pollutants in sewage, stipulated in the Act and implementing acts), exemplified for specific disposal by the water-legal permit which must be acquired before disposal of sewage, leaving some freedom as to the content of the permit to the authority competent for the issuance thereof (Art. 82).

5. In turn, as it comes to territorial seas and exclusive economic zone (EEZ) of the Republic of Poland and coastal waters, as well as seabed and bedrock within the territorial sea, the EEZ of Poland and coastal waters, quality protection is realized on the grounds of regulations provided in section 7 chapter 3 WL. The protection is to be enacted as per the “marine strategy” being a set of actions de-

ters only with regard to water management plans, protection against land-based sources of pollution and flood protection, and other scope – as stipulated in the Act (Art. 4).

⁴⁰ The concept corresponds to the term used in Art. 2, sect. 10 FWD of “body of surface water.”

⁴¹ Regulation of the Minister of Maritime Economy and Inland Navigation of 11 October 2019 on the classification of ecological status, ecological potential and chemical status and the classification of the status of uniform parts of surface waters, as well as environmental quality standards for priority substances, Journal of Laws item 2149 [henceforth cited as: the KJCW regulation].

⁴² This conceptual construct is derived from the provisions of the FWD.

defined in the act and comprising of, pursuant to Art. 144: 1) a preliminary assessment of seawater environmental quality; 2) developing a list of descriptors of good environmental status (GES) of seawaters; 3) establishing environmental targets for marine waters and associated indicators to achieve GES (set of environmental goals for seawaters); 4) developing and putting in place a sea water monitoring plan; 5) developing and putting in place a sea water protection program.

The above structure is all-encompassing and foresees a number of actions to be taken that would rely on normative acts equal to regulation to specify the issues decided on. And so, the starting point is the document that assesses the status of a given element of the environment, i.e. sea waters (point 1 hereinabove), which should be in “good status,” that is having the descriptors listed (point 2), as stipulated by the normative regulatory act. Comparison of preliminary assessment with “good status” requirements allows to determine environmental goals for a given element (point 3), finally determined by a normative act equal to regulation, which should be implemented in compliance with the principles set out in the marine water protection program (point 5). The condition of marine environment and the process of achieving the objectives set (program implementation) should be subject to monitoring according to principles set out in the monitoring plan (point 4). In general, such structure based on the requirements of the Framework Water Directive⁴³ complies with theoretical assumptions (see e.g. [Soininen and Hassan 2019, 101–19]) and guidelines construed in acts of international law, analyzed in literature [Maes 2008, 797–810].

The above documents should contain elements that are significant for this analysis. And so, the preliminary assessment should list hazardous marine waste (Art. 150, sect. 3, point 2g), and the list of descriptors of GES and their qualitative or quantitative threshold values, and also criteria for determining good environmental status of marine environment, i.a. for such indicators as maintenance of waste (in terms of quality and volume) within limits that are deemed as not harmful to the marine environment, transitional and coastal waters (Art. 153, sect. 2, point 10).

However, the analysis of the National Marine Water Protection Program⁴⁴ indicates that the issues being the subject of this paper have been tackled only obliquely in the chapter on waste (chapter 2.10) which only states that there are no data available pertaining to other waste than waste in the coastal zone, and that such data should be obtained through the monitoring of sea waters (section 7 of this chapter, p. 151). The environmental target has been formulated in a general manner – “Reducing the amount of new solid waste or already deposited solid

⁴³ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327 as amended [henceforth cited as: the Framework Water Directive – FWD].

⁴⁴ Regulation of the Council of Ministers of 11 November 2017 on the adoption of national program for the protection of sea waters (Journal of Laws item 2469), issued on the basis of a delegation from Art. 61s, sect. 11 of the Act of 18 July 2001, the Water Law, applicable until an implementing act is passed on the basis of WL 2017.

waste in the marine environment coming from various sources to a level which ensures proper functioning of the ecosystem considering its natural resilience, or reducing to a level equal to complete elimination of new waste” (p. 141).

Other elements of the Program relevant to the issue in focus are the general assumptions pertaining to the handling of identified shipwrecks (in particular, the wreck of the Stuttgart) and the general premise of examining the scale of environmental threat resulting from shipwrecks settled on seabed. The Program foresees the developing of an oil spill waste management plan pertaining to oil spills resulting from accidents at sea. However, no references of this kind have been made to CWA submerged in the sea, though the Program obliges the Environmental Protection Inspection bodies to conduct general monitoring of marine environment.

By and large, the subject issue is acknowledged in the Program to the extent to which it is possible, it seems, with the body of information currently available. Bringing the issue up is important as it emphasizes the significance of the problem, though, undoubtedly, it is necessary to make efforts to actually identify the measures that would need to be taken to limit this threat. Another important thing is to estimate the expenditure that would be involved. The author believes that it is also worth to use the experience of other countries with regard to marine plans, analyzed in the literature on the subject [Plasman 2008, 811–15]. Finally, to remark on the way these documents are being developed, and in view of the issues tackled herein, it can be observed that the conclusions formulated in the literature pointing to a rather formalistic approach to such works [Piwowarczyk and Wróbel 2016, 310–17] remain valid, though in the case of works on the updated preliminary assessment, the team of experts involved in the works was fortunately expanded.

6. Individual tasks of territorial water quality protection system are at present addressed to the Environmental Protection Inspection⁴⁵ (monitoring and analytics of monitoring data, as well as developing of indicators of good environmental status of marine environment), bodies of the Polish Waters⁴⁶ (establishing environmental targets for sea waters, developing a draft of sea waters protection program); all drafts require consultations with a large number of state organs and institutions. The competence of approving the required normative acts has been moved very high in the legislative hierarchy, up to the level of the Council of Ministers.

7. In general, quality protection regulations have, on the one hand, a preventive role, as they provide for the need to take actions to prevent violations of sea water quality standards, and on the other hand, they are also binding through programs that impose the obligations to undertake specific measures. However, a certain danger exists with regard to seawater quality protection since for the

⁴⁵ A controlling and supervisory body of public administration.

⁴⁶ An institution established by the 2017 WL (of an undetermined legal status) responsible for management of waters.

protection of different categories of waters (internal sea waters and other sea waters) two protection systems have been put in place, rooted in the same idea, but slightly different from one another. The legislator acknowledges this problem by implementing in Art. 160 WL an obligation to carry out marine waters protection in a way that ensures coordination with measures supporting the achievement of environmental target for other waters, i.e. in a manner indicated previously and expressed as general principles of quality protection. However, this is rather a softly and generally formulated obligation, and it does not indicate specific institutions or bodies that would be obliged to take such coordinative actions and does not define the coordination formula.

8. It should be underscored that various detailed acts determine specific obligations regarding the actions to be taken, yet, they tackle the issue only incidentally or partly.

A good example here is the Regulation of the Council of Ministers,⁴⁷ implementing act to the Act on prevention of pollution by ships.⁴⁸ Although the Regulation governs i.a. how the actions to combat hazards and pollution in the Polish marine zone should be organized and identifies organizational units that should support the Maritime Search and Rescue Service (“SAR Service”) in the combating of threats at sea, it actually does not pertain to pollution from ships at sea, or waste discharged by ships or waste transported by them;⁴⁹ furthermore, it does not pertain to sunken ships, including shipwrecks of the past. The regulation explicitly states that the combating of threats and pollution pertinent to chemical warfare agents dumped in the Polish marine zones is governed by separate regulations (para. 1, sect. 2), without explicitly pointing to these provisions, which should not come across as a surprise considering the fact that they are virtually non-existent. The provisions of the Act and the Regulation assign most of the fundamental tasks regarding combating sea pollution (organization of such actions) to the heads of maritime offices.

Nevertheless, these provisions do not constitute a comprehensive and cohesive system of regulations pertaining to hazardous substances and objects lying on the seafloor

6. GENERAL PREVENTIVE OBLIGATIONS

The hitherto analyzed sources of law that give rise to specific protection obligations which can be associated with hazards caused by seafloor waste foresee both preventive and restitutive obligations, but they are mostly focused on the implementation of specific environmental objectives. Some more general pro-

⁴⁷ Regulation of the Council of minister of 8 August 2017 in matter of organization and procedures for maritime dangers and pollution combating, Journal of Laws item 1631.

⁴⁸ Act of 16 March 1995 on prevention of pollution from ships, Journal of Laws of 2017, item 2000.

⁴⁹ By the way, the Act on prevention of pollution from ships adopts in Art. 16 the prohibition to discharge waste or other substances into the sea.

visions put in place to prevent and combat various threats, not just environmental threats, that is regulations on emergency management can also be applied here, in particular the Act of 26 April 2007 on crisis management [Sanderson, Fauser, Thomsen, et al. 2009, 416–22] and associated acts.

Pursuant to Art. 2 of the latter Act, crisis management is defined as the activity of (all) public administration authorities that constitutes an element of managing the national security management system which consists in preventing crisis situations, preparing to take control over them by way of planned activities, responding in case of emergencies, removing their effects and reconstructing resources and critical infrastructure. In turn, crisis situations are defined as situations that impact negatively on the safety of people, property in large sizes or the environment, and produce significant restrictions on the operation of competent public authorities due to the inadequacy of possessed capabilities and resources (Art. 3, sect. 1).

Threats that can be potentially caused by hazardous substances resting on sea-floor may doubtlessly generate situations that fall into the definition of “crisis situation,” thus, they should be embraced by the emergency management system. It is particularly true with regard to the execution of tasks resulting from Art. 4 of the Act, such as, i.a., developing emergency management plans, establishing emergency procedures or maintenance of resources necessary to carry out tasks specified in the crisis management plan, thus clearly preventive tasks. From the perspective of establishment of obligations for public administration to take specific actions, the Ordinance No. 40 of the Minister of Maritime Economy and Inland Navigation⁵⁰ is worth bringing up here. Emergency plans developed by the Ministry should indisputably encompass emergencies associated with negative impacts from sources being the subject of this paper. However, these issues have not been clearly regulated by the provisions of Ordinance No. 40.

7. THE ISSUE OF GENERAL COMPETENCE OF THE DIRECTOR OF MARITIME OFFICE WITH REGARD TO MARINE ENVIRONMENT PROTECTION

Authorities vested with legislative and regulatory competence with regard to specific areas or issues have been listed hereinabove to the extent that such competence was unequivocally determined by the regulations. The problem, however, is that such conceptual determinacy is not always present as it was demonstrated e.g. in reference to the regulations on preventing and remedying environmental damage. It should be noted that the Act on maritime areas, in particular Art. 42, sect. 1 establishes a general competence of the Director of Maritime Office in

⁵⁰ Ordinance No. 40 of the Minister of Maritime Economy and Inland Navigation of 8 November 2018 organization of crisis management and implementation of emergency alert system in organizations under the Minister of Maritime Economy and Inland Navigation or organizations supervised by him, Official Gazette MGMiZŠ 2018, No. 41.

matters “within the scope of government administration related to the use of the sea within the scope regulated by this Act and other acts.” Furthermore, another provision relevant to the issues being the subject of this paper, provided in para. 2, item 5 of the Act, emphasizes that the competence of the director shall include, in particular “matters related to the protection of marine environments against pollution caused by the use of the sea and by dumping of waste and other substances to the extent not provided for by the provisions of geological and mining law.” It seems that the aforementioned regulations should be construed as granting the director of general competence in the matters indicated, which would be equal to taking over of relevant competencies of other authorities regulated in special provisions. However, this is only a presumption resulting from the analysis of regulations. A clear-cut, unequivocal provision is lacking, and its absence may lead to competence disputes.

What seems to be quite problematic is the limitation of the competence of the director to government administration as stipulated in para. 1, as it raises doubts as to his competence with regard to local government tasks which have the nature of “own” tasks. It seems, however, that also these matters, unless they relate to events and actions occurring in marine areas, should lie within the competence of the Director of Maritime Office since the territorial competence of local government refers to the territory of a local government unit which does not include marine areas. This issue is particularly pertinent in the case of commune heads. Under the competence assigned to them under Art. 26, sect. 2 Act on waste discussed hereinabove, they are responsible for removal of waste from sites not being designated waste disposal sites. Again, this is only a postulate, and not a conclusion based on a specific assertion contained in applicable regulations.

CONCLUSIONS

In Polish law, submerged shipwrecks or containers with hazardous substances have the nature (legal status) of waste. Substances or objects transformed into waste a long time ago, are referred to as “waste residues.” Waste residues are nuisances to the environment caused by activities carried out in the distant past, often a time by an unknown entity and usually in unknown circumstances. The consequence is the inability to enact the “the polluter pays principle” which is fundamental in present day environmental protection law and which enforces the liability associated with the removal of nuisances.

Some countries (e.g. Germany, Switzerland) have comprehensively dealt with the issue of handling such harmful effects or nuisances for humans or the environment, often by enacting special statutory acts. However, in Polish law, there are no legal regulations expressly related to the so-called “waste residues,” except for regulations on “historical pollution” of the land surface (provisions of the EPL pertaining to the protection of land surface, yet, not applicable in the case discussed). This results in the need to search for specific grounds for determination

and enforcement of the obligation to remove waste residues.

Such grounds should be provided primarily by the provisions of the WL on water quality protection and the institution of water quality protection programs, being also an element of the marine strategy (Art. 144 et seq.). However, this system requires that potential threats are identified and monitored in terms of their impact on the potential to achieve environmental objectives aimed at maintaining or restoring the indicators of the good environmental status of marine waters.

The main authorities responsible for the implementation of these tasks are the Environmental Protection Inspectorate within the scope of monitoring activities and directors of maritime offices, who should be considered as authorities competent to take actions with regard to waste accumulated on the seabed in order to eliminate or limit their negative impact on the possibility of achieving environmental targets of water quality protection. The latter assumption results primarily from the general competence of the Director of the Maritime Office in matters “within the scope of government administration related to the use of the sea within the scope regulated by this Act and others,” and in particular, “the matters related to the protection of marine environment against pollution caused by the use of the sea and by dumping of waste and other substances” (Art. 42 of the Act on maritime areas).

The crisis management instruments provided for in the Act of 26 April 2007 on crisis management⁵¹ should play a complementary role. They primarily have a preventive function consisting in preparing the system for response in the event of significant threat from such waste. As it comes to response actions carried out within marine areas, directors of maritime offices cooperate with the Maritime Search and Rescue Service as stated in the Act of 16 March 1995 on prevention of pollution from ships.

Nevertheless, Polish legislation regarding the issue in question is dispersed across various laws, and therefore, in many cases, imprecise. Hence, in the event of emergency situations it may be challenging to determine which authorities and entities are responsible for emergency response actions, and in such situations it is the swiftness of response and equivalence of decisions that are the most important.

REFERENCES

- Beldowski, Jacek, Zygmunt Klusek, Marta Szubska, et al. 2016. “Chemical Munitions Search & Assessment – An evaluation of the dumped munitions problem in the Baltic Sea.” *Deep Sea Research Part II: Topical Studies in Oceanography* vol. 128, 85–95. <https://doi.org/10.1016/j.dsr2.2015.01.017>
- Czub, Michał, Lech Kotwicki, Thomas Lang, et al. 2018. “Deep sea habitats in the chemical warfare dumping areas of the Baltic Sea” *Science of The Total Environment* vol. 616–17, 1485–497. <https://doi.org/10.1016/j.scitotenv.2017.10.165>

⁵¹ Act of 26 April 2007 on crisis management, Journal of Laws of 2019, item 1398 as amended.

- Danecka, Daria, and Wojciech Radecki. 2020. *Ustawa o odpadach. Komentarz*. Warszawa: Wolters Kluwer Polska.
- Górski, Marek. 2019. "Nadzwyczajny tryb usuwania odpadów." *Przegląd Komunalny* 12:18–19.
- Greenberg, Michael, Kevin J. Sexton, and David VeARRIER. 2016. "Sea-dumped chemical weapons: environmental risk, occupational hazard." *Clinical Toxicology* 54, no. 2:79–91. <https://doi.org/10.3109/15563650.2015.1121272>
- Hac, Benedykt, and Grażyna Dembska. 2018. *Wstępny Plan oczyszczenia wraku T/S FRANKEN*. Warszawa: Fundacja Mare.
- Korzeniewski, Krzysztof. 1999. "Chemical warfare agents dumped in the Baltic Sea. An overview." *Oceanological Studies* 28, no. 1–2:83–103.
- Maes, Frank. 2008. "The international legal framework for marine spatial planning." *Marine Policy* 32, no. 5:797–810. <https://doi.org/10.1016/j.marpol.2008.03.013>
- Piowarczyk, Joanna, and Borys Wróbel. 2016. "Determinants of legitimate governance of marine Natura 2000 sites in a post-transition European Union country: A case study of Puck Bay, Poland." *Marine Policy* vol. 71, 310–17. <https://doi.org/10.1016/j.marpol.2016.01.019>
- Plasman, Cathy. 2008. "Implementing marine spatial planning: A policy perspective." *Marine Policy* 32, no. 5:811–15. <https://doi.org/10.1016/j.marpol.2008.03.016>
- Rogowska, Justyna, Błażej Kudłak, Stefan L. Tsakovski, et al. 2015. "Surface sediments pollution due to shipwreck s/s «Stuttgart»: a multidisciplinary approach." *Stochastic Environmental Research And Risk Assessment* 29, no. 7:1797–807. <https://doi.org/10.1007/s00477-015-1054-0>
- Sanderson, Hans, Patrik Fauser, Marianne Thomsen, et al. 2008. "Screening level fish community risk assessment of chemical warfare agents in the Baltic Sea." *Journal of Hazardous Materials* 154, no. 1–3:846–57. <https://doi.org/10.1016/j.jhazmat.2007.10.117>
- Sanderson, Hans, Patrik Fauser, Marianne Thomsen, et al. 2009. "Human health risk screening due to consumption of fish contaminated with chemical warfare agents in the Baltic Sea." *Journal of Hazardous Materials* 162, no. 1:416–22. <https://doi.org/10.1016/j.jhazmat.2008.05.059>
- Soininen, Niko, and Hassan Daud. 2019. "Marine spatial planning and the new frontiers of marine governance." In *International Marine Environmental Law and Policy*, ed. Daud Hassan, and Karim Saiful, 101–19. London: Routledge. <https://doi.org/10.4324/9781315624921>
- Szubska, Marta. 2018. "Arsenic in the environment of the Baltic Sea – a review." In *Interdisciplinary Approaches for Sustainable Development Goals. Economic Growth, Social Inclusion and Environmental Protection*, ed. Tymon Zieliński, Iwona Sagan, and Waldemar Surosz, 111–31. GeoPlanet: Earth and Planetary Sciences: Springer 2018. https://doi.org/10.1007/978-3-319-71788-3_9
- Tychinin, Dmitry, and Paul Kosterin. 2000. "Problems in chemical-weapon destruction." *Environmental Science and Pollution Research* 7:245–46. <https://doi.org/10.1007/BF02987359>

PRZECIWDZIAŁANIE ZAGROŻENIOM ZWIĄZANYM Z WRAKAMI STATKÓW
I BOJOWYMI ŚRODKAMI CHEMICZNYMI ZGROMADZONYMI NA DNIE MORSKIM
JAKO ZADANIE ADMINISTRACJI PUBLICZNEJ – PRZYKŁAD POLSKI

Streszczenie. Opracowanie dotyczy zadań administracji publicznej w Polsce w zakresie przeciwdziałania ryzykom i zagrożeniom związanym z wrakami statków (w odniesieniu w szczególności do zawartego w nich paliwa), a także z pojemnikami zawierającymi bojowe środki chemiczne, zgromadzonymi na dnie morskim Bałtyku na obszarze podlegającym polskiej jurysdykcji. Głównym zadaniem jest ustalenie, jakiego rodzaju zadania w tym zakresie ewentualnie obciążają administrację publiczną i w oparciu o jaką podstawę prawną powinny być wykonywane. Analiza odnosi się przede wszystkim do aktów polskiego prawa wewnętrznego, uwzględnia także w niezbędnym zakresie wymagania wynikające z umów międzynarodowych oraz aktów prawa unijnego. Sformułowane wnioski wskazują na konieczność uzupełnienia regulacji prawnych oraz systemów reago-

wania kryzysowego w razie wystąpienia zagrożeń zanieczyszczenia środowiska morskiego i obszarów nadbrzeżnych.

Słowa kluczowe: zagrożenia środowiska morskiego Bałtyku, wraki i bojowe środki chemiczne na dnie morskim, zadania aparatu administracji państwa w zwalczaniu zagrożeń środowiska morskiego

Informacje o Autorze: Prof. dr hab. Marek Górski – Instytut Nauk Prawnych Uniwersytetu Szczecińskiego; e-mail: marek.gorski@usz.edu.pl; <https://orcid.org/0000-0003-0708-0739>