(Temporary Translation)

(Appendix)

Grounds for revocation

No. 1 The requirement of "appropriate and rational use of national land" (Article 4, Paragraph 1, Item 1 of the Act) is not satisfied.

1 Through a soil survey conducted after disposition of approval, it was discovered that the seabed in the target reclamation area unexpectedly possesses special topographical and geological features, and it was recognized that this was not consistent with a "suitable location in light of use as a reclamation site"

(1) The ground soil condition and planned soil layer of planned revetment site C as part of the Marine Corps Air Station Futenma (MCAS FUTENMA) alternative facility construction project (hereinafter, "this reclamation project") are indicated in Attachment 2: Design Overview Document (hereinafter, "the design overview document") of the application document for approval for reclamation of public waters (hereinafter, "the application document") submitted by the Okinawa Defense Bureau (hereinafter, "ODB") to Okinawa Prefecture. Moreover, in response to questions from Okinawa Prefecture that arose during the examination process for the approval for reclamation of public waters, the ODB stated that it had "determined that the possibility of ground liquefaction is low. In addition, as for consolidation settlement of the ground, as indicated in the geological strata cross-section diagram no viscous soil layer has been confirmed that might cause subsidence, so it is assumed that consolidation settlement will not occur directly under the planned site." Accordingly, the application for reclamation of public waters was approved as of December 27, 2013 (Okinawa Prefectural Civil Engineering Directive No. 1321 / Okinawa Prefectural Agriculture Directive No. 1721, dated December 27, 2013; hereinafter, "approval given for this project"). This approval was premised upon the description in the design overview document and the soil conditions, etc. indicated in the answer given by the ODB.

However, a soil survey conducted after approval was given for this project clearly shows that planned revetment site C possesses special topographical and geological features that had not been foreseen at time of approval, and the risk is recognized that ground liquefaction may occur due to extremely loose sandy soil or extremely soft viscous soil or that consolidation settlement or similar may occur if revetments, etc. are constructed in the relevant location.

In addition, Cape Henokozaki and Oura Bay, where the reclamation project is to be carried out, have a very distinctive ecological system seen only here in

Japan; however, if foundation improvement work is carried out on the seafloor, this will affect the growth of coral species and other marine organisms due to turbidity and other factors caused by construction.

Furthermore, as it became clear that the site possesses special topographical and geological features that had not been foreseen at time of approval, in construction of the MCAS FUTENMA alternative facility (hereinafter, "Henoko New Base"), the necessity of certain construction work unforeseen at time of approval of this reclamation project was recognized, and it is also recognized that relocation from MCAS FUTENMA at an early date by construction of the Henoko New Base will not be possible.

In light of the facts outlined above, which were discovered after approval was given for this project, it has been recognized that the examination criteria for approval for reclamation of public waters (which ask "Is the site for reclamation in a suitable location in light of the intended use of the reclamation site?") have not been met, and that this reclamation project does not satisfy the requirement of "appropriate and rational use of national land"− thus, it has been concluded that upholding the validity of the approval given for this project is not consistent with the public interest.

(2) In response to this, the ODB claims that having made a comprehensive judgment based on the results of the boring survey, etc., it wishes to consider implementation planning, environmental conservation measures, etc. and then discuss these matters with Okinawa Prefecture, and does not intend to proceed with construction work without reporting or consulting on the results of this consideration.

However, as a result of the soil survey, it is clear that the target reclamation area possesses special topographical and geological features not foreseen at time of approval of this project, and the selection of the location itself has been judged as not consistent with a "suitable location in light of the intended use of the reclamation site." In addition, despite being unable to confirm safety and environmental impact, etc. without considering overall construction, and although Okinawa Prefecture has repeatedly given instructions to halt construction work and show the overall implementation plan and to consult on this matter, the ODB has continued to unilaterally undertake this construction work, clearly expressing its intent not to obey these administrative instructions and to proceed with construction work without undertaking to show the overall construction design or consult on this matter, and has failed to show implementation planning for the overall construction work. Given this, it is only natural that the ODB will judge that requirements have been met accordance with the design overview. Furthermore, if the ODB seeks to undertake

construction of revetments in accordance with the design overview, it is presumed that this construction could not be completed because the safety of the C revetments is not recognized. Moreover, even assuming construction work could be completed by making drastic design changes, the likelihood of environmental impact caused by construction of soft ground countermeasures, etc. and the lengthy extension of the construction period itself are undeniable; even more significantly, this construction is recognized as being inconsistent with the requirement "Is the site for reclamation in a suitable location in light of the intended use of the reclamation site?"

Given the above, there are no grounds for the ODB's claim

2 The results of a soil survey conducted after approval was given for this project indicate that an active fault exists on the seabed in the reclamation area, which has been recognized as being inconsistent with a "suitable location in light of the intended use of the reclamation site"

(1) The literature shows that an active fault known as the Henoko Fault exists in the land area near the reclamation site (Soichi Osozawa & Yasushi Watanabe; "Geology of Nago & Yanbaru," 2011). If the line of the Henoko Fault is extended to the sea, it is understood that this line extends along steep slopes of valley topography or valley walls on the seafloor (hereinafter, "seafloor valley topography"). As part of this reclamation project, facilities such as airport runways are to be constructed directly above this seafloor valley topography. However, after approval was given for this project, the geologist Professor Emeritus Yuzo Kato of the University of the Ryukyus (hereinafter, "Professor Emeritus Kato") pointed out his estimation that the seafloor valley topography of the seafloor at the planned reclamation site indicates the position of an active fault; moreover, Soichi Osozawa (hereinafter, "Mr. Osozawa"), the author of the above-listed "Geology of Nago & Yanbaru", also indicated that in his judgment, he recognizes this seafloor valley topography as an active fault.

Selection of a location where the existence of an active fault has been pointed out as a reclamation site for the construction of the Marine Corps Air Station is inconsistent with the examination criteria for approval for reclamation of public waters (which ask "Is the site for reclamation in a suitable location in light of the intended use of the reclamation site?"); thus, it is recognized that reclamation of the Henoko coastline to construct the Henoko New Base, a Marine Corps Air Station, does not satisfy the requirement of "appropriate and rational use of national land," and the situation is now such that upholding the validity of the approval given for this project is not consistent with the public interest.

(2) In response to this, the ODB claims that the Henoko Fault is not treated as an

active fault in the existing literature (“Active Fault Database of Japan” & “Digital Active Fault Map of Japan”).

However, even where an active fault exists, the Active Fault Database of Japan does not record it if under 10 km in length. The geological map published in "Geology of Nago & Yanbaru" lists the Henoko Fault as 8.5 km in length ... meaning that it does not satisfy the recording criterion in the existing literature because it does not reach 10 km in length; accordingly, the fact that the Henoko Fault is not described as an active fault in the literature does not serve as a rationale to deny that it is an active fault. Moreover, in the Digital Active Fault Map of Japan, even when existence of an active fault is confirmed by a geological outcrop on the surface, if the corresponding topography is not recognized, then it is not certified as an active fault; thus, in this literature, even where an active fault exists it may not be displayed. As outlined above, neither of these documents necessarily lists all active faults even when these are confirmed to exist; thus, it is impossible to deny the existence of an active fault on the basis that it is not described in either of these documents, and there are no grounds for the ODB's claim.

In addition, the ODB claims that Professor Emeritus Kato’s hypothesis that the aforementioned seafloor valley topography represents an active fault is difficult to understand, and also claims that the grounds for Mr. Osozawa’s judgment are unclear. However, the hypothesis-forming process shown in Professor Emeritus Kato’s opinion is considered to be logical and based on concrete grounds and it is not possible to say that grounds for Mr. Osozawa’s judgment are unclear, as this judgment has been shown to be based on knowledge gained by investigation of the Henoko Fault and acoustic exploration cross-sections and boring specimens, etc. acquired through the soil survey carried out after approval was given for this project. It is recognized that geological experts indicate the existence of an active fault based on concrete grounds, and there are no grounds for the ODB's claim in this regard.

3 In the US Defense Department's “UFC 3-260-01 Airfield and Heliport Planning and Design” Unified Facilities Criteria (Updated November 2008; hereinafter "Unified Criteria"), for the purpose of safe navigation of aircraft, height restrictions are set above approach-departure surfaces, horizontal surfaces, etc. (hereinafter, "height restrictions") for the peripheral space around each airfield. With respect to height restrictions over horizontal surfaces, these are set to 45.72 meters above the runway in a 2,286-meter radius from the central point of the runway. Since the runways of Henoko New Base will be at about 8.8 meters when converted to altitude above sea level, height restrictions will be set in a range exceeding an

altitude of about 54.52 meters above sea level. However, if Henoko New Base was to be completed and used as a Marine Corps Air Station, many structures in the surrounding area would be in breach of these height restrictions, including school buildings at the National Institute of Technology, Okinawa College, the ammunition warehouse in the U.S. military ammunition store at Henoko, metal pylons belonging to telecommunications carriers and the Okinawa Electric Power Company, and public buildings such as Kube Elementary and Junior High Schools, as well as private houses and apartments.

Selection of a location where existing buildings and structures are in conflict with the Unified Criteria's listed height restrictions as a reclamation site for the construction of an airfield is inconsistent with the examination criteria for approval for reclamation of public waters (which ask "Is the site for reclamation in a suitable location in light of the intended use of the reclamation site?"); thus, it is recognized that reclamation of the Henoko coastline to construct the Henoko New Base, a Marine Corps Air Station, does not satisfy the requirement of "appropriate and rational use of national land."

In this regard, the ODB does not deny that there are buildings and structures that conflict with these height restrictions, but rather lays forth an argument that these represent exemptions from the Unified Criteria. However, height restrictions above horizontal surfaces are established to ensure the safety of aircraft performing circular maneuvers or low-altitude flying, etc. and to ensure that aircraft can take off and land safely. Seen from the viewpoint of residents, if buildings or other structures are in conflict with height restrictions, in cases where these might hinder the safe navigation of aircraft, and even where these are consistent with exemptions from the Unified Critieria, it is undeniable that residents will be constantly concerned about the risk of damage due to aircraft accidents, etc.

4 Even if the Henoko New Base is completed, it has become clear that MCAS Futenma will not be returned unless the conditions of return under the integration plan are satisfied; thus, this is recognized as being inconsistent with a "suitable location in light of the intended use of the reclamation site" as well as "sufficient value to justify abolishing public waters for land use as the motivation for reclamation"

At Japan's House of Councillors Committee on Foreign Affairs and Defense meeting on June 6, 2017, Minister of Defense Tomomi Inada responded that, "Regarding improvement of use of private-sector facilities in times of emergency, as there are no specific details at the present time we will continue to consult and coordinate with the US side. Regarding the explanation of Ministry of Defense officials at the gathering where this was pointed out, and the concrete details of

this explanation, as this is premised on consultation with the US side, in order to see MCAS Futenma returned, the necessity of satisfying the conditions of return (including improvement of use of private-sector facilities in times of emergency) was stated. In regard to this point, in the absence of any specific consultation or detail-based coordination with the US side in the future, the conditions for return will not be met and MCAS Futenma will not be returned." Thus, it has become evident that even if the Henoko New Base is completed, MCAS Futenma will not be returned unless the other conditions of return are in place.

As one reason for taking the position that there are no options for relocation within Okinawa Prefecture other than Henoko, in Attachment 1: Statement of reasoning for necessity of reclamation (hereinafter, "statement of reasoning for necessity of reclamation") of the application document for approval for reclamation of public waters the ODB stated that this site will enable it to "secure the required land area, including runways." However, the fact that the runway lengths are short as stated in the report by the US Government Accountability Office can be described as a functional defect; moreover, given that the Minister of Defense has responded that MCAS Futenma will not be returned unless the condition for return of "improvement of use of private-sector facilities" is established, it has become evident that construction of the Henoko New Base cannot "secure the required land area, including runways." In accordance with facts that came to light after approval was given for this project, it is recognized as being inconsistent with the examination criteria that apply to the "necessity of reclamation" – namely, a "suitable location in light of the intended use of the reclamation site" as well as "sufficient value to justify abolishing public waters for land use as the motivation for reclamation."

Moreover, even if Henoko New Base is successfully constructed, if the "improvement of use of private facilities" condition for return is not met MCAS Futenma will not be returned. It is now clear that the statement "Eliminating the risks of MCAS Futenma at an early stage is necessary, and having a plan to relocate the airfield in as short a period as possible is desirable" (which form the grounds for the statement that "relocation outside Japan or outside Okinawa Prefecture is inappropriate" as contained in the statement of reasoning for necessity of reclamation) and its reasoning have not been established. Given this situation, this is recognized as being inconsistent with "sufficient value to justify abolishing public waters for land use as the motivation for reclamation."

As outlined above, in accordance with the US Government Accountability Office report and the response to the National Diet by Minister of Defense Inada suggesting that if the conditions of return are not satisfied then MCAS Futenma will not be returned, it has become evident that the reasons for reclamation of the

Henoko New Base that were indicated in the statement of reasoning for necessity of reclamation have not been established. Many problems exist– the construction of Henoko New Base would entrench into the future the excessive burden placed on Okinawa by military bases and would represent a serious hindrance to the use of national land in Okinawa Prefecture; the coastal waters of Henoko targeted for reclamation have irreplaceable and precious natural value; the citizens of Okinawa Prefecture are opposed to the reclamation of public waters for construction of the Henoko New Base; and it is still undetermined how many years would be needed to complete construction of Henoko New Base, which would in effect consolidate MCAS Futenma. On the other hand, given that the necessity of military forces in Okinawa Prefecture being stationed at MCAS Futenma is not recognized as inevitable and that the necessity of base relocation to be within Okinawa Prefecture is also not recognized as inevitable, after approval was given for this project it became clear that the grounds for necessity of reclamation indicated in the statement of reasoning for necessity of reclamation have not been established. Accordingly, it is recognized that reclamation of the Henoko coast in order to construct the Henoko New Base (a Marine Corps airfield) does not satisfy the requirement of "appropriate and rational use of national land."

In this regard, the ODB has stated, "We are taking steps to achieve the return of this airfield, and we cannot presume that the airfield will not be returned after the Henoko relocation is complete." However, it is unclear specifically what kinds of steps have been taken; in fact, at the present time no coordination has been undertaken for "improvement of use of private-sector facilities in times of emergency," and the specific rationale enabling this goal to be achieved in the future is also unclear.

Moreover, regarding the conditions of return, although made public before approval was given for this reclamation project, the response from Minister of Defense Inada has made it clear that if these conditions are not satisfied, even if an alternative base for Futenma is completed, then Futenma will not be returned.

No. 2 Non-fulfillment of Point of Concern 1, which is an obligation attached to approval given for this project

1 Paragraph 1 of the additional clauses (obligations) attached to the approval given for this project (hereinafter, "Point of Concern 1"), states that "Consultation regarding construction work shall be held in advance with Okinawa Prefecture concerning implementation planning for construction." However, on February 7, 2017, the ODB commenced maritime construction related to the installation of anti-pollution membrane filters, and on April 25th of the same year the ODB

commenced revetment construction work, both of which were undertaken without advance consultation concerning implementation planning for construction work, and were recognized as being in breach of Point of Concern 1 (non-fulfillment of obligation).

2 In regard to this, the ODB claims (1) that since the provisions of Article 32 of the Act, which state that "When the conditions of licensing or other disposition under the law concerning reclamation have been violated, licensing shall be revoked," do not apply mutatis mutandis to approval for the state, under the system of laws, it is not presumed that action would extend as far as revocation of approval due to violation of conditions attached to the approval– and even if the right to withdraw is exercised under general legal principles, such exercise would be restricted; and ② that the ODB did not intend to start construction work without undertaking consultation regarding implementation planning and did not undertake any construction work which did not satisfy the requirement of "sufficient consideration for disaster prevention."

However, the fact that Article 32 of the Act, which provides for revocation of licensing, does not apply mutatis mutandis to approval for the state does not invalidate this revocation based on general legal principles. In cases where the government agency that conducted the administrative disposition revokes its own administrative disposition, academically speaking this is considered revocation with official authority, which is held distinct from withdrawal due to later circumstances. However, both for original defects in the conditions of disposition and for any defects that arise later, any state in which the disposition in question maintains its validity would be illegal, and the lawful state is restored by overturning its effect, both of which actions are substantively the same. According to the Supreme Court of Japan ruling dated December 20, 2016, and Law Reports 70, vol. 9, page 2281, if a defect (illegal and unjust) exists in the disposition of approval for reclamation, then it is understood that the Prefectural Governor of Okinawa, who possesses authority for disposition even if there are no provisions for revocation upon official authority, may revoke the disposition of approval upon official authority, with the same being true of withdrawal as well. In addition, the state (the Minister of Land, Infrastructure, Transport and Tourism) has indicated its opinion that "Generally, for administrative agencies, even where explicit provisions do not exist, if there is a defect in approval for reclamation or if a public utility violation is later found to arise, needless to say, revocation or withdrawal of authority based on such general legal principles can be interpreted as possible, both in regard to 'approval' to the state and 'licensing' to private individuals" (letter in reply from the Minister of Land, Infrastructure and Transport as respondent in a case of claim for revocation concerning illegal state involvement, based on Article

251-5 of the Local Autonomy Act, No. 1 of 2016, dated February 28, 2016). Further, even in cases of breach of obligation by the other party in an administrative disposition when no specific provisions exist concerning handling of revocation, as an unlawful state has been brought about in regard to this approval, etc. by the party that received for-profit administrative approval, revocation (withdrawal) of approval to eliminate the unlawful state or to prevent its recurrence is based on the principle of administration by law, and the legal or regulatory grounds for this disposition can constitute sufficient grounds.

In addition, the effect of Point of Concern 1 is to confirm that final implementation planning meets the conditions of approval, and satisfies the conditions of licensing in the case of licensing. The advance consultation in question is necessary to confirm whether final implementation planning meets the conditions of approval; if construction work related to reclamation is undertaken without first confirming that the conditions of approval are satisfied, as a result of the implementation planning consultation, this will be considered unacceptable. Moreover, in confirming whether final implementation planning meets the conditions of approval, it is impossible to confirm safety and other aspects unless the entire implementation planning is examined and confirmed. Therefore, implementation planning for the entirety of the revetment work must be shown. Also, construction that is commenced without showing the overall implementation planning and consulting is considered unilateral (non-negotiated) construction, and as indicated in No. 3-1, if revetments are constructed in accordance with the design overview, the safety of the C revetments cannot be recognized.

Moreover, although Okinawa Prefecture has repeatedly given administrative instructions to comply with Point of Concern 1, the ODB has proceeded with construction work without responding to this point and it is objectively clear that the ODB has no intention to follow these administrative instructions and comply with Point of Concern 1; thus, it has been recognized that this non-compliance with Point of Concern 1 has rendered revocation of approval unavoidable.

No. 3 The requirement of "Sufficient consideration for disaster prevention" (Article 4, Paragraph 1, Item 2 of the Act) is not satisfied

1 Due to the discovery of unexpected topography and geology by soil survey after approval was given for this project, it was recognized that this was not consistent with the requirements for "Structure of revetments on the reclaimed land ... (with) sufficient consideration for disaster prevention" and "With respect to selection of the reclamation site location ... and construction methods such as ground improvement, etc. of the seafloor ... appropriate consideration for disaster prevention must ensure that ground is suitable in light of the intended use of the

reclamation site."

(1) Since structures such as revetments are supported by the ground, it stands to reason that safety cannot be recognized if the ground is unable to support the structure. Moreover, during the examination related to approval given for this project, judgment of compliance with the examination criteria was premised on the ODB's responses to the questions posed by Okinawa Prefecture regarding site topography and geology, the design overview, stability calculation results, etc. as described in the Design Overview Document as well as the possibility of liquefaction or subsidence of the ground. It was judged that "The structures of revetments, etc. on the reclamation site were subjected to stability calculations involving sliding, collapsing, and supporting forces, in compliance with technical standards, constituting sufficient consideration for disaster prevention," and "As there are plans for evaluating the existence of ground liquefaction at the reclamation site and carrying out ground improvement works using proven construction methods at locations where countermeasures are necessary, it is believed that countermeasures are in place to ensure the ground is suitable in light of the intended use of the reclamation site, and that sufficient consideration has been given to disaster prevention." For these reasons, the project was recognized as compliant with examination criteria.

However, according to the results of the soil survey conducted after approval was given for this project, "Special topographical and geological features not foreseen at time of approval were confirmed in the vicinity of planned revetment sites C-1 to C-3. To briefly summarize these features, significantly depressed valley topography has formed surrounding terrain that swells considerably above the seafloor ... The special topographical and geological features are thought to have formed from this valley topography (B-26, B-28), which is formed of very loose, soft valley sedimentary deposits (sandy soil, viscous soil) that have accumulated in layers as thick as 40 meters .... As explained previously, significantly depressed valley topography is formed in the vicinity of planned revetment site C-1, built up of very loose, soft valley sedimentary deposits of sandy soil and viscous soil. N values are 0 to 18 (average 5.4) in the upper layer of sandy soil Avf2-s1 and 0 to 13 (average 1.6) in the lower layer of viscous soil Avf2-c1, and in many cases N value is 0. Given the above, particularly in the relevant areas, it is essential that detailed examinations of structural stability, ground consolidation settlement, and ground liquefaction are conducted." The upper layer in the vicinity of planned revetment site C-3 consists of extremely soft, viscous soil up to 13.5 meters, and it is evident that the topography and soil quality differ significantly from the design overview document.

Given the aforementioned special topographical and geological features

uncovered by the soil survey conducted after approval was given for this project, the risk of subsidence such as ground liquefaction or consolidation settlement is acknowledged, and it is recognized that the presuppositions of the stability calculations shown in the design overview document have been overturned.

From the above, it was concluded that this was not consistent with the examination criteria for approval for reclamation of public waters, which require "Structure of revetments on the reclaimed land ... (with) sufficient consideration for disaster prevention" and "With respect to selection of the reclamation site location ... and construction methods such as ground improvement, etc. of the seafloor ... appropriate consideration for disaster prevention must ensure that ground is suitable in light of the intended use of the reclamation site," and furthermore that the requirement of "sufficient consideration for disaster prevention" was not satisfied; thus, it was concluded that upholding the validity of the approval given for this project is not consistent with the public interest.

(2) On the other hand, the ODB's decisions have been made comprehensively based on ground strength, etc. from the results of boring surveys, etc., although at the moment, the ODB claims that these documents are not available.

The fact that stability calculation results are in compliance with technical standards serves as a presupposition for satisfying the requirement for "sufficient consideration for disaster prevention"; however, the results of the soil survey indicate that soil conditions and planned soil layer, etc. as described in the design overview document differ from actual conditions, which overturns the presuppositions of these stability calculations. Also, in regard to the N value of sandy soil, which is a factor in determining liquefaction (when N value is low, ground is loose and easily liquefied), the N value was listed as 11 under soil conditions in the explanatory document, while in fact it is clear that N values of 0 are found in many locations. It has become evident that the judgments made at time of approval– "structures of revetments, etc. on the reclamation site were subjected to stability calculations involving sliding, collapsing, and supporting forces, in compliance with technical standards, constituting sufficient consideration for disaster prevention" and "As there are plans for evaluating the existence of ground liquefaction at the reclamation site and carrying out ground improvement works using proven construction methods at locations where countermeasures are necessary, it is believed that countermeasures are in place to ensure the ground is suitable in light of the intended use of the reclamation site, and that sufficient consideration has been given to disaster prevention" – have now had their presuppositions overturned. The requirement of "sufficient consideration for disaster prevention" is judged on overall construction in regard to the reclamation, and is not judged by dividing the target area into zones and

then determining whether the requirement is satisfied for each zone. As the design overview shows the overall state of construction, and as it is clear that the safety of revetment site C cannot be confirmed, it stand to reason that this be recognized as not satisfying the requirement of "sufficient consideration for disaster prevention."

If implementation planning is shown for only part of the construction work, it stands to reason that no judgment can be made regarding the safety of the locations for which implementation planning is not shown. Also, if safety cannot be determined through the implementation planning for other locations or if design has changed significantly, the impact of this cannot be determined, and at the stage where the implementation planning for overall construction is not shown, it stands to reason that the design overview will become the target reference for this judgment.

2 From the results of the soil survey conducted after approval was given for this project, it was pointed out that there is an active fault on the seafloor in the reclamation area, and it was recognized that this was not consistent with "With respect to selection of the reclamation site location ... appropriate consideration for disaster prevention must ensure that ground is suitable in light of the intended use of the reclamation site."

(1) After approval was given for this project, geologists pointed out the existence of active faults on the seafloor, where construction is planned for the runways of the Henoko New Base. Regarding the risks of disaster brought by the active fault, Mr. Osozawa pointed out the risk of level irregularities that could cut across runways, while Professor Emeritus Kato pointed out that "Valley topography presumed to represent an active fault exists in Oura Bay and it runs under the site where base construction is planned. Accordingly, when this fault becomes active, serious and significant damage will occur following construction of the base."

Selection of a site thus described by geologists to serve as a reclamation site is inconsistent with the examination criteria for approval for reclamation of public waters, which require that "With respect to selection of the reclamation site location ... appropriate consideration for disaster prevention must ensure that ground is suitable in light of the intended use of the reclamation site." Thus, it is recognized that the requirement of "sufficient consideration for disaster prevention" was not satisfied and that upholding the validity of the approval given for this project is not consistent with the public interest.

(2) In response to this, the ODB claims that the Henoko Fault is not treated as an active fault in the existing literature ("Active Fault Database of Japan" &

"Digital Active Fault Map of Japan"), and that there are no listings indicating the existence of active faults in the Henoko coastal area.

However, as mentioned in Nos. 1 and 2 (2), the fact that neither of these documents treats the Henoko Fault as an active fault does not constitute a rationale for denying that the Henoko Fault is an active fault; both documents show active faults at land only, and it is unknown whether or not these documents ever sought to investigate active faults on the seafloor, making it impossible to conclude that the Henoko Fault and the submarine valley topography are not active faults. Thus, there are no grounds for the ODB's claim.

No. 4 The requirement to "Take action in sufficient consideration of environmental conservation" (Article 4, Paragraph 1, Item 2 of the Act) is not satisfied

1 Embarking on construction work without consultation about detailed consideration of environmental conservation measures on the basis of implementation planning for overall reclamation work is in breach of Point of Concern 2

Paragraph 2 of the additional clauses (obligations) attached to the approval given for this project (hereinafter, "Point of Concern 2") states that " Regarding environmental conservation measures during construction work, detailed consideration and consultation with the prefecture must be carried out concerning environmental conservation measures based on implementation planning, environmental monitoring surveys, post-completion surveys, etc. Also, in undertaking this detailed consideration and implementation of measures, etc., an Environmental Monitoring Committee (interim name) composed of specialists and experts in various fields must be established, from which advice must be received. Furthermore, all necessary actions must be taken to prevent invasion of non-native species, in particular, and to protect marine organisms such as dugongs and sea turtles. The implementation status of these activities must also be reported to Okinawa Prefecture and any relevant municipalities." However, this Point of Concern was attached in order to guarantee with certainty as yet unpresented areas of specific and effective environmental conservation measures, etc. in the Environmental Conservation Guidelines at the time approval was given for this project.

In the results of judgments made when approval was given for this project, in light of the examination criteria, even while acknowledging compliance with requirements, " in line with the attached documents (citation note: i.e., environmental conservation measures by ODB based on the listings in the Environmental Conservation Guidelines), as the construction methods, environmental conservation measures and countermeasures that are viable options at the present stage are being carried out," and while acknowledging that

measures are being taken in sufficient consideration of environmental conservation (including "in construction of revetment and other construction works," "as befitting the properties of reclaimed soil and sand, etc.," "in the collection and transportation of reclaimed soil and sand, etc.," and "in converting surface waters to land through reclamation"), it was also stated that "It is desirable to attach Points of Concern in order to guarantee with certainty the implementation of these construction methods, countermeasures, etc." Point of Concern 2 is an obligation based on these concerns, and its implementation is necessary to satisfy the requirement of compliance in ongoing implementation of this project.

Regarding environmental conservation measures, etc. during construction, the ODB needs to consider the impact not only on individual sections of revetment but also environmental conservation measures etc. in light of the environmental impact of the entire (consecutive) revetment seawall. To carry out advance consultations based on Point of Concern 2, ODB needs to submit environmental conservation measures, etc. that have been examined in detail based on overall implementation planning for the reclamation site, including the entire revetment wall. However, ODB has unilaterally formulated its environmental conservation countermeasures, etc. based only on the implementation planning of certain revetment sections, declaring the advance consultations based on Point of Concern 2 to be complete (ODB Survey notice No. 4759, dated October 28, 2015) (ODB Survey notice No. 4758, dated October 28, 2015; Notice of Construction Commencement), and has commenced construction, which is recognized as in breach of Point of Concern 2.

Due to this breach of Point of Concern 2 and failure to consult on environmental conservation measures, etc. that have been examined in detail based on implementation planning for the entire reclamation, it is impossible to ensure with certainty that the environmental conservation measures and countermeasures indicated to some extent at the time of approval of this project will materialize and will be implemented at the project implementation stage in order to achieve "sufficient consideration ... of environmental conservation." Thus, this requirement is recognized as not satisfied.

2 Environmental conservation measures formulated after approval was given for this project are not appropriate with regard to coral

Regarding the concrete environmental conservation measures formulated by ODB after approval was given for this project, the points listed below are deemed inappropriate and may create obstacles to conservation of coral species in areas around the project implementation site.

(1) Failure to create and submit detailed charts for construction work, including suggestions from the environmental monitoring committee, that present

information such as transplant priorities, detailed construction process schedules, and implementation period of each environmental conservation measure

Although transplant and relocation of coral species should be performed before the project is implemented, in the case that transplanting work is carried out in parallel with construction work, due to concerns about construction work causing contamination to spread to the surrounding area, the timing of each construction process and each transplant/relocation process must be clearly specified in advance, and these environmental conservation measures must be confirmed to be appropriate. Furthermore, as the question "Have the time needed for transplanting and the order of priority when the time is short, etc. been established?" posed at the 4th meeting of the Environmental Monitoring Committee indicates, this transplant work must be carefully planned to ensure that appropriate measures can be taken whenever necessary.

In response to this, regarding the timing of transplanting coral species, the ODB says only "Specifically, we plan to carry out construction up to the point of commencing construction of revetments, etc. in waters where corals are found, with specific plans for coral transplants to be decided based on the details of construction such as the revetments in question, etc., and these are not clearly determined at the present time" (ODB Survey notice No. 2225, dated April 14, 2017). The detailed timing of this process and the corresponding period of implementation and other details of any environmental conservation measures have not been clarified in advance.

In this case, the ODB explained to the Environmental Monitoring Committee, etc. that the habitat of coral species would not be influenced following revetment construction, and stated that it would start revetment construction work after confirming that there was no special guidance or advice. In addition to stating that measures "are not clearly determined at the present time" as described above, the ODB's response included only what could be shown at that time, with the timing and other details of the relevant environmental conservation measures not yet made clear; thus, there are no grounds for the ODB's claim.

(2) The scope for transplanting/relocation has been set as "depth ranges of 20 meters or less," and the corals to be transplanted/relocated are classified as "Small corals: Coral species at least 10 cm in diameter distributed over areas of 0.2 ha or more with total coverage of at least 5%."

AS the ODB has set the scope for the transplant/relocation of coral species at "depth ranges of 20 meters or less," there is concern that corals living deeper than 20 meters will not be transplanted or relocated. It cannot be confirmed whether selection criteria and other details for coral species to be transplanted/relocated

by the ODB are appropriate, and it also cannot be confirmed whether this is sufficient as an environmental conservation measure.

Although the prefecture has pointed out that the selection criteria etc. for coral species targeted for transplant/relocation by the ODB could not be confirmed on based on expert opinion, etc. the ODB simply claims that no special guidance or advice was received from members of the Committee, not giving any explanation of the basis of selection criteria etc. for coral species targeted for transplant/relocation; thus, there are no grounds for the ODB's claim.

(3) There are problems with selection of transplant destinations

With regard to problems of coral transplant/relocation destinations, in response to a statement by a member of the Environmental Monitoring Committee saying "For transplant/relocation destinations, the differences between tidal currents from the original area of distribution and the impact of fresh water inflow from the Mijagawa River need to be considered," the ODB stated that, "In selecting coral transplant/relocation destinations, based on the opinions of an expert research group, in addition to current areas of distribution we are also considering sites previously inhabited by corals as potential areas, and our consideration is based on wave striking and the results of turbidity simulation." However, it is unclear whether this consideration takes into account impact of times of fresh water inflow, and its safety as an environmental conservation measure for transplant/relocation of coral species cannot be confirmed.

With respect to this, the ODB applied to Okinawa Prefecture for special permission for certain corals, of which the Governor of Okinawa Prefecture gave special permission for some coral species, and the ODB claims it believes that the Prefecture understands that there are no problems with the transplant destination.

However, the ODB's claim that special permission has been obtained from Okinawa Prefecture regarding selection of transplant destinations for individual coral species, based on the Okinawa Prefecture Fishery Coordination Regulations, which aim to help protect and cultivate fishery resources, unlike the purpose of the Act on Reclamation Public Waters, is a different issue from the question whether or not environmental protection measures for coral species related to this project based on approval for reclamation for public waters are appropriate. It does not indicate that consideration has been undertaken based on the impact of times of fresh water inflow.

The ODB has not indicated that it has considered the impact at times of fresh water inflow, and there are no grounds for the ODB's claim.

(4) Inadequate environmental conservation measures for unlisted species and red-listed corals

Okinawa Prefecture has repeatedly asked the ODB to clarify its surveying and conservation measures for unlisted coral species, but the ODB has only answered that this is under consideration, and in the future, it will continue to receive guidance and advice from members of the Environmental Monitoring Committee, and so on. On 17th March, 2017, Japan's Ministry of the Environment announced its Red List of marine organisms. Among the species confirmed as listed in the assessment report, five coral species were classified as new and valuable species; thus, Okinawa Prefecture inquired about habitats and transplanting schedule for the relevant species (Marine notice No. 4, dated April 21, 2017), but the ODB did not respond, saying only that it would "reply later" (ODB Survey notice No. 2320, dated 24th April, 2017), and commenced construction work on revetments on April 25, 2017. Subsequent to this, Okinawa Prefecture made further inquiries of the ODB about the habitats of red-listed coral species and their transplanting schedules, and also suggested that the ODB should consider transplanting red-listed coral species even if they did not meet the ODB's own criteria for transplant/relocation. As the ODB is unilaterally undertaking this revetment construction work, the Prefecture urgently requested that the ODB respond to these issues and also requested suspension of revetment construction work (Marine notice, No. 73, dated May 8, 2017; Marine notice, No. 213, dated July 10, 2017; and Marine notice, No. 370, dated August 25, 2017). In regard to this, ODB has only repeatedly stated that the handling of red-listed coral species is still under consideration, and there have been absolutely no reports to Okinawa Prefecture about the existence of any habitat surveys, the progress of surveys, or survey results (ODB Survey notice No. 3965, dated July 25, 2017; ODB Survey notice No. 4590, dated September 8, 2017). Against this background, the ODB suddenly submitted the survey and confirmation results of red-listed coral species to the 9th meeting of the Environmental Monitoring Committee, etc. held on September 27, 2017. It was evident that ODB had not reported these to Okinawa Prefecture, which holds the authority for approval, at the time of repeated inquiries made by the Prefecture in July 2017, even though the investigation had clearly already commenced by then. Also, 14 clusters of red-listed coral species (2 clusters of Okinawa *hamasango* coral & 12 clusters of *himesango* coral) were confirmed in the survey and confirmation results from July 5 to 22, 2017, but in the August 18 survey, it was confirmed that 6 clusters had died (1 cluster of Okinawa *hamasango* coral & 5 clusters of *himesango* coral) and 6 clusters had disappeared. According to the survey on September 1 of the same year, the death of one cluster was confirmed (Document 2 of the 9th

meeting of the Environmental Monitoring Committee).

After confirming these red-listed coral species in July, the ODB should have halted construction works immediately, should have made a report to Okinawa Prefecture, and should have consulted with the Prefecture regarding conservation measures, such as the necessity of transplantation. However, it did none of these things. It is impossible to argue that the fact that 13 clusters of red-listed coral species have died or disappeared is not due to the impact of the ODB's construction work, and it cannot be said that environmental conservation measures for red-listed coral species were sufficiently implemented.

Subsequently, the ODB formulated conservation measures for transplant/relocation of red-listed coral species, rendering 11 confirmed clusters (9 clusters of Okinawa *hamasango* coral & 2 clusters of *himesango* coral) eligible for transplanting. Of these corals, the ODB applied to the Governor of Okinawa for special supplementary permission for coral species in order to transplant one cluster of *himesango* coral existing in the vicinity of the K-4 revetment by Cape Henokozaki, based on the Okinawa Prefecture Fishery Coordination Regulations (ODB No. 263, Application for special permission, dated January 24, 2018). However, this was not permitted on the grounds that selection of the transplant destination was not appropriate (Agriculture & Water notice No. 2503, Denial of application for special permission, dated March 9, 2018). Subsequently, if a construction method such as quadruple installation of a contamination prevention framework was adopted, it would be possible to construct revetments while leaving the *himesango* coral in place and not impacting the revetment construction works, which was arbitrarily excluded from eligibility for transplanting (Document 2-1, 14th meeting of the Environmental Monitoring Committee). However, the structure and effects of the contamination prevention framework and the results of water turbidity simulations, etc. were not shown to the Prefecture, and revetment construction works cannot be described as having no impact on the *himesango* coral. Also, even if there is no direct impact such as loss of *himesango* coral due to reclamation construction works, after revetment works are completed the revetments will continue to exist a scant 41 meters from the *himesango* coral. Accordingly, it is necessary to consider the necessity of transplanting in light of the impact of the existence and shared utilization of facilities; however, such studies have not been undertaken, and given that the ongoing existence and shared utilization of facilities may cause changes in flow rates accompanying changes in tidal currents, changes in seawater temperature, changes in nutrient salt quantities, and changes in seafloor sediments (changes in particle size distribution and sedimentation), *himesango* coral may be affected. In addition, it is possible that the existence of revetments will narrow water

currents, making water flow faster, exposing the *himesango* coral, and causing feeding damage by fish, etc.

As described above, environmental conservation measures for these species are not sufficiently in place.

The ODB believes that since it has not done any construction impacting the 13 clusters of red-listed coral, no coral has died as a result of its construction work. The ODB claims that after reporting this information to the 9th meeting of the Environmental Monitoring Committee on 27th September, 2017, it also explained the same point to Okinawa Prefecture; however, the ODB presented no concrete evidence that the 13 clusters of red-listed coral that died or disappeared were not impacted as a result of ODB construction work.

Moreover, as for the himesango coral on the Henoko side, from the simulation results the ODB has stated that it is possible to construct so as to prevent the impact of water turbidity accompanying revetment construction reaching the environmental conservation target value of 2 mg/L. As a result of reviewing construction methods, it was decided to leave the relevant himesango coral in place without transplanting it. The ODB claims that during actual construction, continuous monitoring of water turbidity during construction etc. will be undertaken, confirming that the relevant coral habitat is preserved without any impact on the coral due to revetment construction; in regard to this, the ODB claims that after receiving guidance and advice from the Environmental Monitoring Committee, it offered an explanation of the matter to Okinawa Prefecture. However, this explanation only described the possible impact of water turbidity during construction – it did not explain changes in flow rates accompanying changes in tidal currents, changes in seawater temperature, changes in nutrient salt quantities, or changes in seafloor sediments (changes in particle size distribution and sedimentation), or how the existence of revetments will narrow water currents, making water flow faster, exposing the himesango coral, and causing feeding damage by fish, etc.

Accordingly, there are no grounds for the ODB's claim

(5) Monitoring at time of transplanting/relocation and a communications system for conveying information to the Committee are not in place

At the 4th meeting of the Environmental Monitoring Committee, regarding the implementation of transplantation and relocation of coral species, it is pointed out that it may be necessary to convey information to specialist committee members at any time, to double-check for an appropriate response before proceeding. As a result, the ODB agreed to construct a monitoring system and communication system by such time as transplanting/relocation work is actually

carried out, in order to provide information on the progress of work to specialist committee members at any time, but as yet a concrete system has not been put in place.

The ODB claims that after ODB personnel have confirmed that the contractors commissioned to perform coral transplanting/relocation work have carried out the relevant transplanting/relocation work appropriately, the ODB provides information to members of the Environmental Monitoring Committee. However, this stops at indicating that the ODB provides information to members of the Environmental Monitoring Committee, and does not indicate any grounds for determining whether or not a concrete monitoring system has been put in place.

Accordingly, there are no grounds for the ODB's claim

(6) Failure to respond to requests for entry to inspect

As mentioned above, since the survey reporting by ODB on the distribution of coral clusters and coral species is extremely inadequate, Okinawa Prefecture requested entry to perform an on-site survey to confirm these matters. In response, the ODB did not permit entry for an on-site survey in person, claiming these matters could be confirmed by presenting the results of the current progress survey. For this reason, it cannot be confirmed whether or not the ODB is appropriately implementing environmental conservation measures for coral species based on the Environmental Conservation Guidelines, so together with all the aforementioned problems, there is a concern that this may create obstacles to environmental conservation.

The ODB claims that it wants Okinawa Prefecture to concretely indicate why the fact that ODB did not permit the conduct of an on-site survey in accordance with the wishes of Okinawa Prefecture is directly linked to the "concern that this will create obstacles to environmental conservation of coral species," and whether it fails to satisfy the requirement to "Take action in sufficient consideration of environmental conservation," while also showing materials provided by other project operators and records of on-site surveys for other projects in Okinawa Prefecture.

As examining only, the survey results submitted by ODB cannot dispel the concerns of Okinawa Prefecture that there is some possibility of creating obstacles to environmental conservation, the prefecture requested entry to conduct its own on-site survey, but the ODB did not permit entry for this on-site survey, preventing the prefecture from confirming whether conservation measures were properly carried out. Accordingly, it was judged that there was some risk that this would create obstacles to coral conservation. Allowing Okinawa Prefecture to confirm the situation by directly analyzing the

distribution and species of coral via its own on-site survey would be simpler and more effective in dispelling the prefecture's concerns than just providing the relevant materials to the prefecture, and considering that the ODB's claim only serves to indicate doubts about the prefecture's claim, there are no grounds for the ODB's claim.

Since the survey report by the ODB on the distribution and species of coral was extremely inadequate, Okinawa Prefecture made a request for entry to perform its own on-site survey to confirm these points. Being permitted to conduct an on-site survey on the transplant origin and transplant destination of 1 cluster of Okinawa *hamasango* coral, which differed in its objective, does not equate to a survey conducted on the matters in question here.

3 Environmental conservation measures in regard to dugongs are not appropriate

(1) Environmental conservation measures etc. for seagrass beds that were to be formulated before start of construction have not been formulated

An environmental conservation measure for the seagrass beds used as feeding sites by dugong states "As a protective measure for disappearing seagrass beds, targeting quiet areas and areas of low coverage, after first obtaining guidance and advice from experts we will consider methods and carrying out subsequent investigation on transplant of seagrass, expansion of its growing range, etc. and implement these methods as far as possible" (Environmental Conservation Guidelines 7-11). However, detailed documents regarding this consideration were submitted to the Environmental Monitoring Committee on December 5, 2017, after construction had commenced (Document 6-4 of the 10th meeting of the Environmental Monitoring Committee). As it is self-evident that dugong will be impacted if the seagrass beds that serve as their feeding sites disappear, environmental conservation measures for seagrass beds needed to be implemented before the disappearance of these seagrass beds: i.e., these should have been studied and implemented before start of construction. Implementing these after construction starts drastically will reduce dugong feeding sites until new feeding sites can be secured via environmental conservation measures. For this reason, an "obstacle to environmental conservation" in regard to dugongs will occur.

The ODB believes that the main feeding site of the dugongs inhabiting the project implementation area is the seagrass bed on the western side of the Kayo district, as originally described in the Environmental Conservation Guidelines, and also claims that it does not believe that "dugong feeding sites will significantly decrease until a new feeding site is secured" due to this reclamation project.

However, arguing that the main feeding site is "the seagrass bed on the western side of the Kayo district" is inappropriate, given the fact that feeding traces have been confirmed in the vicinity of the project implementation area in the inner and western areas of Oura Bay. As "reducing the impact on dugongs to the maximum extent possible in response to the decrease in seagrass beds following the existence of facilities, etc." is listed in the Environmental Conservation Guidelines, accordingly, there are no grounds for the ODB's claim.

(2) There are problems with the dugong monitoring and alert system formulated after approval was given, and it is not appropriate

The ODB stated in the Environmental Conservation Guidelines that "We intend to construct a dugong monitoring and alert system" (Environmental Conservation Guidelines 6-16-279). However, as this dugong monitoring and alert system was constructed after approval was given for this project, the system has the following problems, and there is some risk of "obstacles to environmental conservation" occurring in regard to dugongs.

The dugongs living near the islands of Okinawa are designated as an endangered species in the "Data Book on Endangered Wildlife in Japan" published by Japan’s Fisheries Agency, while the Environmental Conservation Guidelines also describe the number of surviving dugongs as extremely small and the survival of individual populations as at risk. With regard to dugong habitat conservation, despite the fact that an extremely cautious response is required in undertaking concrete environmental conservation measures, this has not been undertaken to a sufficient extent.

A) The ODB stated in the Environmental Conservation Guidelines that "In confirming dugong habitat locations, visual observation is necessarily limited when observing from terrestrial elevations or observing from marine monitoring vessels" (Environmental Conservation Guidelines 6-16-279). Furthermore, in its "Monitoring plan using the dugong monitoring and alert system," the ODB stated its intention to monitor dugongs, etc. after start of construction using this system. In other words, despite being required to conclude consulting about this system before the start of revetment work, the ODB submitted the relevant consultation documents to install this system to Okinawa Prefecture for the first time only after revetment work had started (ODB notice No. 4294, dated August 17, 2017). As a result, in addition to being unable to confirm whether monitoring of dugong was adequate before system installation, since data was collected using different methods from start of construction up to installation of the system and then from the time of system installation to the present, there is no continuity of data, and it is

impossible to accurately judge the impact of construction work on dugongs.

Although the ODB has been conducting visual confirmation of individual dugongs from aircraft and confirming dugong usage of seagrass beds by visual observation during dives since before construction work started, when revetment construction started on April 25, 2017, in order to confirm the presence of dugongs in the waters off Cape Henokozaki from June 2017, monitoring commenced using a method of suspending underwater recording devices from marine vessels. Subsequent to this, the consultation documents for establishing the dugong surveillance and alert system were submitted to the Okinawa prefectural government on August 17, 2017. After obtaining consensus on the consultation regarding shared use of public assets from Okinawa Prefecture on February 16, 2018, submarine recording equipment was installed on the seafloor surface and dugong were monitored using the dugong monitoring and alert system.

The ODB does not deny the fact that data was collected using different methods from start of construction up to installation of the system and then from the time of system installation to the present. However, with respect to the dugong habitat survey, the ODB claims that this does not mean that the existence of dugongs is confirmed only through the cries (vocalizations) of the dugongs, but also in consideration of the information obtained from the previous survey results; the ODB claims that by doing so, it can determine whether or not construction has impacted the dugongs even if the survey is based on recording devices installed after start of construction.

However, the ODB itself stated in the Environmental Conservation Guidelines that, "In confirming dugong habitat locations, visual observation is necessarily limited when observing from terrestrial elevations or observing from marine monitoring vessels." The ODB also pointed out that experts have stated that when survey methods are changed, "It is difficult to compare data during construction and after construction."

Accordingly, there are no grounds for the ODB's claim

B) The "Monitoring plan using the dugong monitoring and alert system" states that verification testing of prototype monitoring and alert devices (Monitoring plan using the dugong monitoring and alert system, pp. 6, 13 - 17) was conducted in Thailand, but there is not enough evidence to conclude that the parameters of the verification testing conducted in Thailand are applicable to the target construction area. For instance, Oura Bay possesses a unique topography, including sharp drop-offs from the coral reef marine area, as well as special characteristics stemming from various sound sources including

barges and movement of stone fragments during construction on this project. Also, the tendencies of Okinawa dugongs to rest in the day and feed at night are well known, but these characteristics were not taken into account and bear no similarity with the ecology of dugongs in Thailand. In addition, as described in the following section, there is a risk that scanning sonar may distress the dugongs, and verification testing was not conducted in Thailand in regard to this point. Regardless of this, the ODB commenced construction work without conducting verification testing at Oura Bay. Accordingly, it is unclear whether or not accurate data can be collected on dugong habitats in Oura Bay using this system, and it is doubtful this will enable accurate determination of the impact of construction work on the dugongs.

The ODB claims that since verification of scanning sonar was conducted in Thailand, the assertion that "There is a risk that scanning sonar may distress the dugongs, and verification testing was not conducted in Thailand in regard to this point" is untrue.

However, this verification of scanning sonar to which the ODB refers comprises "verification test results for dugong vocalizations" and "confirming dugong detection using sonar," and not the results of verification testing about dugongs finding the scanning sonar distressing. Furthermore, it has been pointed out by experts that the scanning sonar may distress the dugong.

Accordingly, there are no grounds for the ODB's claim

C) Although the frequency of habitat confirmation by helicopter is set at 3- 4 times per month under the monitoring plan using the dugong monitoring and alert system (Monitoring plan using the dugong monitoring and alert system, pp. 2, 18, 19), 3- 4 times per month is insufficiently frequent to investigate and survey the dugong habitat situation, and will not enable accurate determination of the impact of construction work on the dugongs.

After showing the frequency of surveys by helicopter and the criteria for confirmation range, the ODB insists that it wants the basis for determining that this frequency and range are sufficient to be concretely shown, and it has not shown any evidence that 3-4 times per month is sufficient.

In response to this, experts have asked "Wouldn't be it better to confirm (dugong) habitat by helicopter more frequently than 3- 4 times per month?", pointing out that "Usually, when environmental assessments are conducted, data comparisons are performed with identical surveys. In this case, just as with environmental assessments, we should carefully investigate a broad area in the shortest possible time from the sky using aircraft and helicopters. After this kind of survey is conducted, it enables environmental assessment data to

be compared against each other."

Accordingly, there are no grounds for the ODB's claim

D) With regard to the implementation status of the monitoring and alert system, since the ODB has refused to permit on-site confirmation without any reasonable grounds (ODB Survey notice No. 1479, dated March 24, 2017), the effectiveness and appropriate implementation of this system cannot be confirmed.

The ODB states that it asked Okinawa Prefecture to clarify the specific reasons and purposes and legal basis for needing to undertake on-site verification, and it claims that as there was no response to this from Okinawa Prefecture, it understood that the request for on-site verification had been withdrawn.

However, even if the system is appropriate, Okinawa Prefecture is unable to confirm its effectiveness unless its operations are also performed in an appropriate manner: for example, what kind of personnel will operate it, and in what way? For this reason, Okinawa Prefecture asked the ODB on July 24, 2015, for permission to conduct on-site confirmation of the implementation status of the dugong monitoring and alert system. The prefecture never withdrew this request, and since the ODB did not grant the request to perform on-site confirmation of the effectiveness of the dugong monitoring and alert system, the situation is unchanged; since the effectiveness, etc. of the dugong monitoring and alert system cannot be confirmed, there are no grounds for the ODB's claim.

E) The "Monitoring plan using the dugong monitoring and alert system" formulated by the ODB states that "The arrangement of monitoring platform vessels shall be changed from time to time as appropriate for each period, in accordance with the progress of construction work." (Monitoring plan using the dugong monitoring and alert system, p. 20). However, as the ODB has changed the construction process since the initial plan and as an accurate construction schedule adjusted for these changes has not been submitted to the prefecture, information such as the number of vessels operating as monitoring platform vessels, their effective range, their arrangement and positioning, and their operational planning has not been shown (OBD Survey notice No. 4395, dated October 6, 2015; OBD Survey notice No. 1866, dated March 31, 2017), the effectiveness of the dugong monitoring and alert system cannot be judged.

The "Monitoring plan using the dugong surveillance and alert system" indicates that before the start of construction the ODB was to use three

monitoring platform vessels to monitor the entire area within the alert and monitoring area (implementation area for reclamation construction), while after the start of construction it was to monitor sea areas outside the alert and monitoring area, including the entire area of Oura Bay and the western side of the Kayo district, respectively, as monitoring areas using the line transect method (approx. 300 meters). The ODB claims that there is no need for subsequent changes, even though it has shown no specific grounds indicating there is no necessity of changing this arrangement following changes in the construction process. Accordingly, there are no grounds for the ODB's claim.

F) In the "Monitoring plan using the dugong surveillance and alert system" formulated by the ODB, "Previously recorded dugong vocalizations are emitted by broad-frequency underwater speakers, thus raising the rate of detection of dugong inhabitation by pro-actively bouncing back their vocalizations" (Monitoring plan using the dugong surveillance and alert system, p. 4). However, the ODB has not investigated whether generating sounds using broad-frequency underwater speakers may be triggering or distressing to the dugongs, and has not considered safety: namely, whether or not broadcasting dugong vocalizations will in fact threaten the dugongs. The risk exists that this may adversely affect the dugongs.

The ODB explained this to the Environmental Monitoring Committee and confirmed that no special guidance and advice was received. It insists that Okinawa Prefecture show concrete evidence of any risk that dugongs will be distressed or adversely affected, indicating some kind of evidence or fact-based position. However, there is no concrete evidence that dugongs will not be distressed or adversely affected by broadcasting dugong vocalizations using broad-frequency underwater speakers, or the safety of this.

Accordingly, there are no grounds for the ODB's claim

G) In the "Monitoring plan using the dugong surveillance and alert system" formulated by the ODB, "As the monitoring platform vessels travel over the water, acoustic waves are emitted from the scanning sonar and the existence of dugong is verified from the reflected waves" (Monitoring plan using the dugong surveillance and alert system, p. 5). However, the influence and safety of the use of scanning sonar on dugongs have not been studied, and the use of sonar may in fact distress the dugong. The risk exists that this may adversely affect the dugongs.

The ODB claims that verification testing of the scanning sonar (searchlight sonar) was carried out in the waters near Talibon Island, but this claim is in

reference to dugong vocalization bounce-back test results and confirmation of dugong detection using sonar, and not the result of the verification test on distress caused to dugongs. Furthermore, it has been pointed out by experts that the scanning sonar may distress the dugongs.

Accordingly, there are no grounds for the ODB's claim

H) Regarding growth, movement monitoring, and alert subsystems, it is impossible to accurately judge the impact on the dugong due to construction unless these are installed not only in the marine construction area but also in Oura Bay.

The ODB is conducting monitoring of dugongs presuming that environmental conservation measures will be placed at Kayo, Kouri Island, Yasuda, and Cape Hedomisaki, as per the Monitoring plan using the dugong surveillance and alert system.

In this regard, as construction will be carried out within Oura Bay, the installation of subsystems in Oura Bay remains on the outer periphery of the alert and monitoring area, and fewer in number than other areas. Considering that experts have also stated that "Growth, movement monitoring, and alert subsystems should also be set up in Oura Bay," there is a problem with the ODB's method of setting up these subsystems, and there are no grounds for the ODB's claim.

I) Listed environmental conservation measure for dugongs include "After carrying out construction work, monitor whether there are any changes in dugong habitat, and if changes are found, investigate their relevance to construction work. If judged to be impacted by construction work, take measures promptly such as reviewing construction methods"; however, the range of confirmation (Monitoring plan using the dugong monitoring and alert system, p. 2) at time of implementation is insufficient. As feeding trace surveys were not conducted in the inner part of Oura Bay or at Henoko (western section of Oura Bay), where feeding traces have been confirmed in the past, or in the waters from south of Henoko (where individual C was confirmed) as far as Matsuda (as per documents from the 8th, 9th, 10th, 12th, 14th, and 15th meetings of the Environmental Monitoring Committee), the impact of the project cannot be fully grasped and the impact of construction work on the dugongs cannot be accurately judged.

The ODB conducts feeding trace surveys in the Abe and Kayo district, and from 2009 has continued to carry out feeding trace surveys in waters near the project implementation area from the Henoko grounds to the Toyohara

grounds.

Experts have pointed out that, "Although the use of seagrass beds in Oura Bay (inner and western areas of the bay) was confirmed before start of construction, it is significant that there has been no confirmation after start of construction. It is highly likely that the dugong feeding environment in Oura Bay will be affected by construction. ... Even if no trace of feeding is found upon investigating, this fact cannot be ignored. For similar reasons, the fact that a similar investigation as in the Abe/Kayo site has not been carried out in the seagrass beds extending from south of Henoko to Matsuda is a problem."

In the case that the activity range of individual dugongs continues to be outside of previous ranges, the ODB is only considering whether this is due to environmental changes accompanying the construction work, or whether it is due only to changes in the natural environment. Also, the ODB survey upon which this is premised was extremely inadequate in regard to this matter.

Accordingly, there are no grounds for the ODB's claim

J) Listed environmental conservation measure for dugongs include "After carrying out construction work, monitor whether there are any changes in dugong habitat, and if changes are found, investigate their relevance to construction work. If judged to be impacted by construction work, take measures promptly such as reviewing construction methods" (Environmental Conservation Guidelines 6-16-282), but the problem lies in how data collected by the system, etc. is utilized. The impact of this project was assessed based only on identifying the activity ranges of individual dugongs, and was not assessed for frequency of use in those waters (as per documents from the 8th, 9th, 10th, 12th, 14th, and 15th meetings of the Environmental Monitoring Committee), and so the impact of construction work on the dugongs cannot be accurately judged.

In addition to claiming it understands habitat conditions including frequency of use of marine areas, the ODB also claims that it is capable of efficient and effective understanding of changes in activity range and behavioral ecology in waters where dugongs have previously been confirmed. However, the methods, timing, and scope of these surveys actually only show data with considerable variation, with no assessment based on frequency of use and no concrete evidence shown in regard to this.

On the other hand, experts have pointed out that "The frequency of dugong appearances in the waters near Kayo and Kouri, and whether this frequency differs before and after construction, need to be made clear. Analysis carried out in light of the survey and observation efforts is necessary. If the frequency

of dugong appearance outside these specific waters differs before and after construction, this may also represent an important finding as an impact assessment."

Accordingly, there are no grounds for the ODB's claim

K) Listed environmental conservation measure for dugongs include "After carrying out construction work, monitor whether there are any changes in dugong habitat, and if changes are found, investigate their relevance to construction work. If judged to be impacted by construction work, take measures promptly such as reviewing construction methods." However, in the habitat surveys, etc. by aircraft undertaken by the ODB in these habitable waters, the amount of effort devoted to these surveys, such as flight routes and flight times, was not shown. Specifically, aircraft surveys should be conducted throughout the year in all coastal and island areas of Okinawa in the form of line surveys over short time periods. For this reason, it is impossible to subject the dugong confirmation situation, etc. to statistical testing, and so the impact of construction work on the dugongs cannot be accurately judged.

Experts have pointed out that "Usually, when environmental assessments are conducted, similar surveys are carried out and data comparisons are made. In this case, just as with environmental assessments, we should carefully investigate a broad area in the shortest possible time from the sky using aircraft and helicopters; after this kind of survey is conducted, it enables environmental assessment data to be compared against each other" and that "There was a need to undertake broad-area surveys by aircraft." As the ODB has not shown any research efforts toward aircraft habitat surveys, etc., and has also shown no concrete grounds why aircraft surveys should not be conducted throughout the year in all coastal and island areas of Okinawa in the form of line surveys over short time periods, there are no grounds for the ODB's claim.

Also, regarding the dugong monitoring and alert system, the Environmental Conservation Guidelines state that "Construction of the dugong monitoring and alert system is planned in consideration of the following principles." It was decided to construct a specific system for the dugong monitoring and alert system after project approval, and confirmation of habitats by helicopter was cited as an item in the "Habitat/movement monitoring/alert subsystems" under this system.

In light of the above, it was planned that after establishing a specific structure following project approval, the dugong monitoring and alert system would be settled in consultation with Okinawa Prefecture based on Point of

Concern 2, and there are no grounds for the ODB’s claim that "It is unreasonable to request things not mentioned in the Environmental Conservation Guidelines."

L) Data obtained from the "Monitoring plan using the dugong monitoring and alert system" has been submitted to the Environmental Monitoring Committee (as per documents from the 8th, 9th, 10th, 12th, 14th, and 15th meetings of the Environmental Monitoring Committee), but there has been no quantitative investigation into whether or not dugongs have been impacted, and it cannot be said that the ODB is able to accurately assess the impact of construction work on the dugongs.

Looking at the High Court ruling in a confirmation of illegality of omission lawsuit on September 16, 2016, which stated, "Having only a qualitative evaluation cannot be described as unjust. ... the state conducts quantitative evaluation of what can be quantitatively evaluated, and when this proves difficult, it can be inferred that it conducts qualitative evaluation” (page 144). Following from this, given the fact it has not necessarily conducted a quantitative investigation into whether dugongs have been impacted, the ODB claims it believes that this cannot be described as unjust.

However, the relevant section of the High Court ruling has not been upheld in subsequent Supreme Court rulings. The High Court ruling stated that, "Having only a qualitative evaluation cannot be described as unjust. ... the state conducts quantitative evaluation of what can be quantitatively evaluated, and when this proves difficult, it can be inferred that it conducts qualitative evaluation,” but the ODB has not shown any concrete evidence that undertaking a quantitative evaluation of dugong habitat status would be either possible or difficult.

Furthermore, it has been pointed out by experts that quantitative evaluation has not been undertaken.

Accordingly, there are no grounds for the ODB's claim

(3) The content of expert guidance and advice and the status of adoption of this guidance and advice are unknown, and it cannot be confirmed whether environmental conservation measures are being implemented based on appropriate guidance and advice

Since the details of the advice given to the ODB by dugong experts and the corresponding response have not been made clear, it cannot be confirmed whether proper environmental conservation measures are being implemented. Although summaries of the proceedings of the Environmental Monitoring

Committee are publicly available, names are not disclosed and it is unclear which remarks were made by dugong experts. Also, it is unknown what kind of guidance and advice has been obtained from experts other than those on the Environmental Monitoring Committee, as well as their fields of expertise, organizational affiliations, etc. in the case that they have offered guidance, and whether the guidance offered was adopted or not (ODB Survey notice No. 5417, dated November 2, 2017).

The ODB claims that the guidance and advice issued based on discussions among members of the Environmental Monitoring Committee was originally not limited to matters based on the opinions of dugong experts, but also from experts in other fields, and it claims that wherever guidance and advice was given as a Committee, measures were taken incorporating this guidance and advice.

However, for example, guidance and advice given by Committee members who are not dugong experts might be considered inappropriate from the viewpoint of dugong experts, and when two or more members in attendance have offered differing guidance and advice about dugongs, as a general rule the opinion of the dugong expert should be adopted.

In addition, the ODB has asked whether the prefecture believes the ODB incapable of judging the fairness of deliberations and the fairness of the Committee itself concerning matters not publicly disclosed for other projects. Because the content of the expert advice and the response to this advice are unclear, Okinawa Prefecture has requested that this information be disclosed (rather than disclosure of names *per se*), as it is currently unable to confirm that appropriate environmental conservation measures are being implemented.

Given the above, there are no grounds for the ODB's claim.

(4) Although the post-facto survey suggests that construction work may have caused actual damage, the existence of this impact has not been investigated

In the "Regarding the post-survey report on the MCAS Futenma alternative facility construction project" document submitted to the ODB by the Governor of Okinawa on July 6, 2018, the Governor requested that the ODB undertake environmental protection measures based on the Okinawa Prefecture Environmental Impact Assessment Ordinance. In the requested environmental protection measures, it was stated that "In the post-survey report, Individual C was not confirmed during the survey period," although it was not stated at what point Individual C was no longer confirmed. Regarding the project implementation area, floats and buoys were put in place in August 2014, and many work vessels and monitoring vessels now travel in the marine area. In the survey at the time of environmental impact assessment, Individual C was an

individual dugong that broadly used the inner waters of Oura Bay and the Henoko area. Given this, there is some risk that implementation of this project could cause harmful impact on dugong habitat. The impact of the project, such as installation of floats and boring surveys in the project implementation area, and the timing when Individual C's presence could no longer be confirmed must be considered." Despite this statement (in the request for environmental conservation measures, p. 9), the existence of impact such as the timing when Individual C was no longer confirmed and the impact of the installation of floats in the project implementation area was not sufficiently considered.

As an opinion was obtained from a member of the Environmental Monitoring Committee to the effect "It has probably grown up, separated from its parents, and left the area," the ODB claims it does not believe that project implementation has had a harmful impact on dugong habitat or environment.

However, the ODB set up buoys and floats in August 2014, and while the presence of dugong Individual C was confirmed in the waters off Kayo and Kouri Island up to June 2015, it was no longer confirmed from July 2015.

Furthermore, experts have pointed out that "The burden of proving that this has not been impacted by construction work lies with the construction provider." In this case, the ODB itself stated that, "It is difficult to state the reason why the presence dugong Individual C is no longer confirmed." It is unclear why the presence of individual C is no longer confirmed; even at the Environmental Monitoring Committee, discussions stopped after presenting the expert opinion that "It has probably grown up, separated from its parents, and left the area," and no further discussions were undertaken.

In addition, the ODB's dugong survey methods suffered from problems (2) and (3) described above.

Accordingly, there are no grounds for the ODB's claim

4 Environmental conservation measures for seagrass beds that should have been formulated after approval was given for this project have not been formulated

The Environmental Conservation Guidelines state that "When the distribution of seagrass beds in the surrounding waters has been clearly reduced from implementation of construction work, guidance and advice should be sought from experts where necessary, seagrass (seedlings, etc.) should be transplanted, and methods for expanding the habitat area by improving the growth base environment should be implemented as far as possible (Environmental Conservation Guidelines, 6-15-226- 227, 7-8). However, given that revetment work has already commenced at the present moment, and presuming that distribution of seagrass beds has been affected, it is necessary to formulate concrete criteria to judge whether or not the

distribution of seagrass beds has clearly declined, but these criteria have not yet been formulated (Marine notice No. 48, dated July 25, 2017, Attachment p. 6; ODB survey notice No. 5417, dated November 2, 2017). In addition, methods concerning expansion of habitat range have not yet been formulated.

The Environmental Conservation Guidelines also state that, "As measures to address disappearing seagrass beds following the existence of an alternative facility, mainly targeting quiet zones formed by installation of the alternative facility and places with low coverage of seagrass beds around modified areas, guidance and advice should be sought from experts where necessary, seagrass should be transplanted, and methods for expanding the habitat area by improving the growth base environment and undertaking subsequent surveys should be considered and implemented as far as possible (Environmental Conservation Guidelines 7-11). In relation to this, the ODB stated that "In line with the Environmental Conservation Guidelines (page 6-15-229), these environmental conservation measures are based on the existence and shared use of the facility; additionally, in regard to quiet zones formed by installation of the alternative facility, etc., it is presumed these will be carried out after completion of reclamation construction work, and no measures will be taken prior to implementation of construction work (ODB Survey notice No. 4395, dated October 6, 2015). The ODB has not yet put environmental protection measures in place.

However, in the Environmental Conservation Guidelines, these are positioned as "environmental conservation measures related to the existence and shared use of facilities," and it is clearly stipulated that some environmental conservation measures should be taken before the start of reclamation construction work (Environmental Conservation Guidelines, 6-13-350. Relocation of benthic (seafloor) animals). Given that these are positioned as "environmental conservation measures related to the existence and shared use of facilities," the presupposition that conservation measures should be carried out after completion of construction work cannot be described as valid.

Since seagrass beds related to the existence of the alternative facility will disappear during construction, it is obviously necessary to carry out environmental conservation measures including transplant of seagrass beds in the reclamation area either before the start of construction or during construction. At the present point in time, it is evident that when construction is underway, "Measures in regard to seagrass beds that will disappear with the existence of the alternative facility" must be taken. Also, as mentioned in 3 (1) above, if environmental conservation measures for seagrass beds are not undertaken, this will also impact the environmental conservation measures for dugongs using these beds as feeding sites.

For the specific criteria used to determine whether the growth and distribution of

seagrass beds have clearly declined, the ODB have based these criteria on the variable range evident in the results of the seagrass survey carried out from 2007 to 2014, and based on that range, the ODB claims it uses whether or not seagrass is inside that range as material to make this determination.

However, Okinawa Prefecture pointed out that there has been no discussion of the criterion of "whether or not seagrass continues to fall outside that range," and even at the present time, conclusions as to whether or not concrete examination has been undertaken cannot be made from the evidence presented by the ODB, so there are no grounds for the ODB's claim.

Furthermore, in regard to the ODB's claim that a decrease in distribution of seagrass beds in the surrounding waters had not been clearly confirmed at implementation of construction, the records of the 15th meeting of the Environmental Monitoring Committee state that although it is recognized that the seagrass bed area has decreased, there are no clear reasons indicating that the decline in growth and distribution of seagrass is not due to implementation of construction.

Also, in response to Okinawa Prefecture pointing out that "It is necessary to carry out environmental conservation measures including transplant of seagrass beds in the reclamation area either before the start of construction or during construction," the ODB claims that it has already started investigating and obtaining guidance and advice from experts regarding expansion of the growth range for seagrass beds. However, although revetment construction work is already underway to a considerable extent, the ODB has only shown that the results of its study on expansion of the growth area of seagrass beds have been compiled to a certain extent, consultation with Okinawa Prefecture and implementation of concrete measures have not yet been achieved, and there are no grounds for the ODB's claim.

5 Construction work was commenced without transplanting or relocating coral species before project implementation

Paragraph 4 of the additional clauses (obligations) attached to the approval given for this project (hereinafter, "Point of Concern 4") states that "Among the documents attached to the application form ... in case of any changes to Public Waters Reclamation Act Regulations No. 8 (document listing measures for environmental conservation), the Governor's approval is required for any changes to the Environmental Conservation Guidelines."

Regarding environmental conservation measures for coral species, the ODB stated that it will "work to reduce impact by transplanting and relocating ... prior to project implementation" as per the Environmental Conservation Guidelines, and

received approval for the reclamation project from the Governor of Okinawa Prefecture (Environmental Conservation Guidelines 7-10).

In this regard, under general environmental conservation measures, if the environment suddenly changes during construction it is possible that coral species may be affected by the sudden environmental changes, and it may also be impossible to respond to this immediately; thus, it is usual to transplant and relocate corals and other important species before project implementation. Also, the environmental impact assessment will investigate, forecast, and assess various environmental factors such as noise, water quality, etc. in regard to the impact of construction work, the impact of the existence of facilities, and the shared use of facilities, respectively. In this case, in regard to impact on coral species, forecasting and assessment was undertaken concerning the impact of turbidity generated during construction, impact on the disappearance of coral species in the reclamation area due to the existence of the reclamation site, impact of wastewater emitted from facilities etc. after shared use, etc. Given that transplant of coral species as an environmental conservation measure is basically a countermeasure against the loss of coral due to the presence of the facility, since coral species requiring transplant will not exist once the coral disappears due to construction, it is stands to reason that transplanting corals prior to construction is necessary; however, it is not limited to this. The Environmental Conservation Guidelines too, regarding implementation of construction, state that "in order to reduce the impact of turbidity during construction on the habitat of coral species" "coral species inhabiting the reclamation area ... will inevitably disappear following reclamation, so wherever possible coral should be transplanted to areas outside the construction work area with the same environmental conditions," (Environmental Conservation Guidelines 6-14-162). The Guidelines require implementation of transplanting as a measure to avoid or mitigate the impact of construction work.

In addition, even in the summaries and minutes of the 1st and 2nd meetings of the Environmental Monitoring Committee established by the ODB, "transplant of coral species" is presumed to be among "1. Environmental conservation measures to be implemented prior to construction" (Document 3 of the 1st meeting of the Environmental Monitoring Committee). Also, in the ODB Survey notice No. 4248, dated September 24, 2015, precaution item 1 of Document 2-② states that "relocation of important species and transplantation of corals will be carried out prior to the start of construction" (ODB Survey notice No. 4248, dated September 24, 2015, precaution item 1 of Document 2-④). Given these circumstances, it is evident that the ODB was planning to transplant and relocate corals prior to implementing the project.

However, the ODB claims that the aforementioned section in Environmental

Conservation Guidelines 7-10 ultimately only requires the ODB to "obtain guidance and advice from experts on concrete measures such as the procedures of transplant/relocation work, environmental conditions for transplant/relocation destinations, environmental adaptability of different coral species, and temporary placement and recovery of harvested corals" before the project is implemented, and that it does not oblige the ODB to carry out transplant or relocation of coral species before the project is implemented (ODB Survey notice No. 2320, dated April 24, 2017). As construction was started without transplant or relocation of coral species prior to implementation of the project and without obtaining approval for change to the Environmental Conservation Guidelines, this is recognized as in breach of Point of Concern 4.

As described above, construction work was commenced without transplant or relocation of coral species prior to implementation of the project, and carrying out revetment construction may result in changes in flow rates accompanying changes in tidal currents, changes in seawater temperature, changes in nutrient salt quantities, and changes in seafloor sediments (changes in particle size distribution and sedimentation), which may impact coral species found in the surrounding area. Also, Okinawa hamasango coral is impacted enough to put in place new measures not described in the Environmental Conservation Guidelines.

Regarding environmental conservation measures for coral species, in light of the contents of the Environmental Conservation Guidelines, the expert opinions raised by Okinawa Prefecture, general approaches to environmental conservation measures, ODB documents created after approval was given, and remarks by members of the Environmental Monitoring Committee, the description in the Environmental Conservation Guidelines (pages 7-10) for this case should be considered as stating that transplant and relocation of coral species will be carried out prior to project implementation. The description in the ODB's Environmental Conservation Guidelines (pages 7-10) states that before carrying out any construction that impacts coral species, the ODB shall "obtain guidance and advice from experts on concrete measures such as the procedures of transplant/relocation work, environmental conditions for transplant/relocation destinations, environmental adaptability of different coral species, and temporary placement and recovery of harvested corals," but there are no grounds for the ODB's claims that it shall carry out transplant/relocation of coral species wherever possible, but that this does not constitute an obligation to transplant/relocate all coral species prior to project implementation.

The ODB also claims that in regard to approval for changes to the Environmental Conservation Guidelines based on Point of Concern 4, it has not made any changes that would require that application; however, construction was started without

transplant or relocation of coral species prior to implementation of this project without approval of changes to the Environmental Conservation Guidelines, so there are no grounds for the ODB's claims.

Furthermore, Okinawa Prefecture is suggesting that construction work was started without transplant or relocation of coral species prior to project implementation, which in fact has had an impact on coral species; thus, there are no grounds for the ODB's claims that, "Revetment construction has had no impact on coral species, the coral habitat environment has been maintained, and no problems have arisen at present."

6 Construction was commenced without transplant or relocation of umibossu (*Nereia intricata Yamada*)

Umibossu (*Nereia intricata Yamada*) is a species of seagrass unique to the Nansei Islands, listed as Endangered Class I on Japan's Ministry of the Environment red list and on Red Data Okinawa. The Environmental Conservation Guidelines 6-13-344 state that "Of the organisms inhabiting the seafloor within the modified area, mainly important species of shellfish and crustaceans with low self-mobility and important species of marine algae deemed necessary, before the start of revetment work important species are to be confirmed by on-site advance surveys, with each species to be relocated to a suitable habitat in the surrounding area, enlisting as much human assistance as possible." Additionally, at 12-2-28 of the same document, the ODB expresses its view that "umibossu is to be transplanted prior to construction, just like transplant of benthic (seafloor) animals." Also, this needs to be handled carefully, as follows: "As some uncertainty remains about the effects of transplanting seagrasses, the growth situation will be investigated by post-survey, including other seagrass species, and if any abnormal changes are seen, new environmental conservation measures will be considered in light of advice from experts."

However, in addition to commencing marine construction works on February 7, 2017, the ODB commenced revetment construction works on April 25 of the same year, during the period from early March to early April, which is regarded as the proliferation period for umibossu. Without transplanting the umibossu, the ODB moved ahead with construction works that will have a significant impact on its conservation.

Furthermore, in answer to an inquiry from Okinawa Prefecture concerning the implementation of umibossu transplanting (Marine notice No. 48, dated July 25, 2017), the ODB responded, "We have not yet transplanted the umibossu, and since the next proliferation period is from early March to early April next year, we do not plan to transplant it this year." Aside from this, the ODB said no more than,

"Details of the timing of umibossu transplanting are currently under review, and we are considering carrying out the project during the proliferation period from early March to early April next year" and that "We have not received any specific guidance or advice at present from the Environmental Monitoring Committee regarding transplanting of umibossu ... In the future, before undertaking construction works that will impact upon umibossu habitats, after obtaining appropriate guidance and advice we intend to provide the relevant information promptly." (ODB Survey notice No. 5417, dated November 2, 2017).

After this, despite moving ahead with revetment construction, etc. in many locations, the only report concerning transplanting of umibossu was in a document distributed at the 15th meeting of the Environmental Monitoring Committee held on May 28, 2018, in which of the 52 sites of umibossu growing positions confirmed in previous surveys, it was reported that only one individual was discovered and transplanted on 28 March of the same year.

Transplant of seagrass is not merely a matter of transplanting– it is also necessary to investigate beforehand whether transplanting will impact either the original location or the transplant destination, and since stable growth at the transplant destination is essential, it is necessary to confirm that the transplant is surviving and that generational changes are occurring. Also, because genes may differ among organisms of the same kind depending on their locations of growth, it is unlikely to be easy to introduce organisms from other regions despite being of the same species. Accordingly, effective transplanting is only possible after such confirmations have been undertaken, and it is extremely important to carry out transplanting before commencement of construction impacts factors such as water turbidity or changes in tidal currents. Regardless, the ODB did not transplant any umibossu before the start of construction; thus, its environmental conservation measures differed from the provisions of the Environmental Conservation Guidelines, which mandated transplanting before implementation of construction work. Because the ODB did not apply for approval of these changes, this is in breach of Point of Concern 4 and will also present a major obstacle to conservation of umibossu as outlined above.

Regarding environmental conservation measures for umibossu, the Environmental Conservation Guidelines state that "Umibossu is to be transplanted prior to construction, just like transplant of benthic (seafloor) animals."

In addition to commencing marine construction works on February 7, 2017, it is recognized that the ODB started revetment construction works on April 25 of the same year.

However, according to the document dated November 2, 2017, the ODB said, "We have not yet transplanted the umibossu, and since the next proliferation period is

from early March to early April next year, we do not plan to transplant it this year," and it is recognized that 1 individual umibossu was first transplanted on March 28, 2018.

In light of these circumstances, it is recognized that umibossu was not transplanted before the start of construction, which is at odds with the provisions of the Environmental Conservation Guidelines and is in breach of Point of Concern 4 as the ODB did not apply for approval of these changes.

In addition, the ODB claims it has undertaken detailed consideration of environmental conservation measures etc. relating to transplant of umibossu, has received guidance and advice from the Environment Monitoring Committee, and has offered explanations directly to Okinawa Prefecture, etc. It also claims that it has responded attentively based on Point of Concern 2, and that it has not undertaken any acts requiring approval for changes to the Environmental Conservation Guidelines based on Point of Concern 4.

However, of the 52 sites selected from umibossu growing locations confirmed in previous surveys, it was reported that only one individual plant was discovered among these 52 sites. The reason why it was found only at one site was not specifically indicated.

For these reasons, there are no grounds for the ODB 's claim that it has responded attentively based on Point of Concern 2.

7 Bringing in stone materials for use in sloping revetment walls by sea transport

As for the method of transporting stone materials used for sloping revetment walls, the ODB has only suggested the "dump truck" method of transporting stone for "sloping revetment walls (middle section of revetments)" section under the "Ship & construction machinery operations plan" in the Environmental Conservation Guidelines, and has mentioned nothing about transportation by ship, such as the "rampway platform vessels" listed under the "caisson-style revetments" section (Environmental Conservation Guidelines 6-1-3). Also, "purchased sand & soil, etc." is listed as one type of sea transport (Environmental Conservation Guidelines 6-1-9 Table 6.1.1.3), as "purchased sand & soil, etc. used for reclamation / ground improvement (sea transport)" (Environmental Conservation Guidelines 2-96). In other words, the ODB received approval for reclamation from the Governor of Okinawa without mentioning anything in the Environmental Conservation Guidelines about transporting the stone for the sloping revetment walls by sea. Also, use of the K-9 revetment site as a pier is not mentioned in the design overview document (design overview document, p. 61).

However, the ODB is transporting the stone used for sloping revetment walls by sea without obtaining approval for changes to the Environmental Conservation

Guidelines, which is recognized as in breach of Point of Concern 4.

As a result of using the K-9 revetment site as a pier to transport stones used for sloping revetment walls in this way without changing the content of environmental conservation measures, as ships approach the shallow water area, new environmental impacts may occur such as throwing up of seafloor sediment. Also, as described in 9 below, it is necessary to revise forecasting and assessment of environmental impact whenever the Environmental Conservation Guidelines are changed; however, in this case, as the ODB did not perform predictive assessment of environmental impact on dugongs once more despite the increase in the number of vessels traveling over the sea, there is some risk of obstacles to environmental conservation.

Based on the description in the opening section of Chapter 6 of the Environmental Conservation Guidelines, which states that "Construction processes and plans are set at the present time and may be changed at the time of implementation," the ODB claims that it has undertaken reconsideration of the relevant operational plans.

However, Point of Concern 4 attached to the approval given for this project states that "Among the documents attached to the application form, ... in case of any changes to Public Waters Reclamation Act Regulation No. 8 (document listing measures for environmental conservation), approval is required." As the ODB transported the stone used for sloping revetment walls by sea without obtaining approval for changes to the Environmental Conservation Guidelines, there are no grounds for the ODB's claim.

In addition, the ODB claims that no specific guidance or advice was received from the Committee regarding the environmental impacts resulting from the change to marine transport, and claims that it also explained this directly to Okinawa Prefecture; however, whenever changes are made to the Environmental Conservation Guidelines, it is necessary to revise forecasting and assessment of environmental impacts and it is necessary to receive approval for these changes after undergoing examination by the prefecture. As the ODB has not submitted the forecasting and assessment of environmental impacts accompanying the marine transport of stone used for sloping revetment walls to the prefecture for examination, there are no grounds for the ODB's claim.

8 Floats installed in the waters off Henoko

Regarding environmental conservation measures for seagrass and seaweed, the ODB stated that, "Even more than the impact of turbidity generated in the surrounding waters, in consideration of the possibility of damage to seagrass and seaweed, etc. in the surrounding waters due to installation of anti-pollution

membrane filters, depending on the circumstances we will not install anti-pollution membrane filters" (Environmental Conservation Guidelines 7-6). The ODB also stated that "With regard to revetment and reclamation construction work on the Henoko side, even more than the impact of turbidity generated in the surrounding environment, in consideration of the possibility of damage to seagrass beds in the waters surrounding installation of anti-pollution membrane filters, we do not plan to install these." (Conservation Guidelines 6-7-125).

As the ODB described installation of anti-pollution membrane filters as outlined above, it has installed floats and anchors in this area for the purposes of clearly indicating the work area and ensuring safety. However, environmental conservation measures that do not involve installation of anti-pollution membrane filters are adopted because such installation carries the risk of damaging seagrass beds, etc. in the relevant sea area, and the same risk of damage holds true when anchors affixed to floats are installed on the seabed.

As such conservation measures are presupposed in the Environmental Conservation Guidelines, if floats and anchors are to be installed, it is necessary to change the content of Environmental Conservation Guidelines and put in place sufficient environmental conservation measures to protect against this. Such action by the ODB is in breach of Point of Concern 4, and may present obstacles to the conservation of seagrass and seaweed in the waters off Henoko.

The ODB claims that the aforementioned environmental conservation measures do not describe floats, etc. in this project, and that approval for changes based on Point of Concern 4 is not necessary.

However, the same risk of damage holds true when anchors affixed to floats are installed on the seabed, so there are no grounds for the ODB's claim.

9 Changing the order of implementation without applying for approval for changes, and failing to consider the impact of these changes on coral species, marine ecosystems, and terrestrial ecosystems

In the "Design Overview" section of the Reclamation of Public Waters Approval Application form, the ODB states that "For reclamation construction work, firstly, anti-pollution membrane filters will be extended in front of reclamation sites wherever required. Next, revetment A, interior partition revetment wall B, and part of interior partition revetment wall A will be established by driving in double steel sheet piles using piling boats, and revetment sites K-1 to K-4, K-8, and K-9 and interior partition revetments N-1 to N-5 will be roughly shaped using the crawler crane unwinding method, after which (in order, starting from reclamation sites shielded from the open sea), land soil as well as stone debris and sea sand brought onto land by sand hopper barges will be transported by dump trucks, after which

land will be reclaimed (filled in) using bulldozers. Next, interior partition revetment wall A will be established by driving in double steel sheet piles using piling boats, and revetments K-5 to K-7, revetments C-1 to C-3, corner revetments, and other revetments (with vessel mooring function) will be roughly shaped, and while securing the shielded area against waves, additional anti-pollution membrane filters will be extended, and earthy soil as well as stone debris and sea sand brought onto land by sand hopper barges will be transported by dump trucks, after which land will be reclaimed (filled in) using bulldozers. After all reclamation areas have been finished up to the planned ground level, anti-pollution membrane filters will be removed and construction related to reclamation will be complete" (Application for approval to change design overview description, "Design overview"). The "Reclamation area ②" item in the design overview document states that, "soil and sand ... will be brought into reclamation area ① constructed in advance … and filling of reclamation area ② will be complete" (Application for approval to change design overview description, in design overview document, p. 28). The construction process chart of the design overview document describes the revetment works pertaining to the alternative facility structure, stating that revetment A and interior partition revetment walls A & B will be constructed first, then about two months thereafter revetment C-1, revetment K-4, revetment K-8, revetment K-9, and interior partition revetments N-1, N-4, and N-5 will be constructed (Application for approval to change design overview description, p. 30, Table 3.1.1). Moreover, the reclamation status progress diagram describes progress for the 12 months of the first year within the reclamation area, listing only reclamation area ①-1 as under reclamation (Application for approval to change design overview description, p. 31, Figure 3.1.3), with construction to proceed in the order of reclamation areas ①, ②, ③. Approval for this project has been received from the Governor of Okinawa on the basis of this planned construction order.

Thus, for these revetment works, the ODB has adopted an order of construction in which it first starts construction of revetment A and interior partition revetment walls A & B, then about two months thereafter starts construction of revetment C-1, revetment K-4, revetment K-8, revetment K-9, and interior partition revetments N-1, N-4, and N-5. In terms of reclamation (landfill) work, this is to be conducted firstly in reclamation area ①, with soil and sand brought to land by sand hopper barges docking at the quay of reclaimed area ① and then transported by dump trucks, after which reclamation area ② will be reclaimed (filled in) using bulldozers.

However, in regard to revetment construction, the ODB started construction on revetment K-9 on April 25, 2017, started construction on revetments K-1 and N-5 on November 6, 2017, and started construction on revetment K-4 on December 22,

2017. This construction was carried out in an order different from the order described in the approval application form. In regard to reclamation work, the ODB stated that "Taking into consideration the progress of revetment K-4 currently under construction, as well as weather & sea conditions, we have decided in future to commence certain reclamation work in reclamation area ② prior to undertaking work in reclamation area ①." (ODB Survey notice No. 3241, dated June 12, 2018) This was not in line with the description in the application forms, etc. and was a clear admission that the ODB intended to undertake reclamation work in reclamation area ② first.

As part of environmental impact assessment, the environmental impact accompanying construction work, including changes in air quality following traffic of construction-related vehicles, water turbidity caused by soil and sand, impact of road traffic noise and vibrations, impact on animals and plants due to affected air quality, etc. is investigated, forecast, and assessed (refer to Environmental Conservation Guidelines 5-2 to 5-24). At this time, forecasts were premised on the implementation planning, construction processes, heavy machinery introduction planning, etc. and the environmental impact assessment was carried out based on these factors. In such cases, rather than forecasting the environmental impact of all construction processes, it is usual to predict peak times of greatest impact. These peak times are derived from the implementation planning, etc. (For examples, refer to Environmental Conservation Guidelines 6-7-119 to 168 (especially 122, 124, 142 to 144, 145 and after). Accordingly, if the order of implementation is changed, the premises of formulating environmental conservation measures will also change and it will be necessary to change the content of environmental conservation measures.

In addition, Point of Concern 4 attached to the approval given for this project state that when there are changes to the Environmental Conservation Guidelines, it is necessary to receive approval for these changes from the Governor, as outlined above.

However, despite carrying out revetment construction in a different order from that described in the approval application documents, etc. for revetment construction work, the ODB has not applied for approval for changes of "design overview" under Article 13-2 of the Act, and has not changed the content of environmental conservation measures, which is recognized as in breach of Point of Concern 4. Also, in regard to reclamation work, the ODB "decided to carry it out in reclamation area ② prior to undertaking reclamation work in reclamation area ①, but as we are planning to implement the environmental conservation measures required to be undertaken for environmental conservation listed in the application form, we have no plans to change these environmental conservation measures before carrying out reclamation work" (ODB Survey notice No. 3793, dated July 12,

2018). It is evident that the ODB will be undertaking reclamation in a different order from the order described in the approval application, etc. and the ODB has also clearly stated that it does not plan to change the content of environmental conservation measures. The ODB has not applied for approval to change the "design overview" in the application documents under Article 13-2 of the Act, and is also undeniably in breach of Point of Concern 4.

Thus, as a result of undertaking construction and reclamation works in an order different from the order described in the approval application documents, etc. without changing the content of environmental conservation measures, it can be easily presumed that this will cause changes in the underwater environment and the dynamics of existing substances and organisms following changes in the coastal topography during the construction period; and unless the environmental impact assessment is revised in accordance with these change in implementation order, this cannot offer adequate protection against the occurrence of obstacles to environmental conservation.

The ODB claims that approval for change based in law is intended to apply in cases of changes to the "design overview" described in the application form, and claims that it believes this does not apply to the relevant design changes in the "design overview document," which is an attached document.

However, Okinawa Prefecture has pointed out that depending on the construction methods used, this may be "subject to the 'changes to the design overview' provisions of Article 13-2 of the Act … and that the requirement to apply for approval for changes to the 'design overview' under Article 13-2 of the Act certainly applies in this situation." The ODB claims only that carrying out reclamation work in reclamation area ② prior to undertaking reclamation work in reclamation area ① does not constitute a change of the "design overview" as specified in the application documents, and thus asserts that it believes approval for changes based on law is not necessary; however, the ODB has not explained in detail what kind of construction methods will be used and has not shown any concrete grounds for stating that the "design overview" will not be changed.

Whenever changes are made to the Environmental Conservation Guidelines or to the design overview, it is necessary to revise forecasting and assessment of environmental impacts and it is necessary to receive approval for these changes after undergoing examination by the prefecture. As the ODB has not submitted the changes in the implementation order of revetment construction and reclamation works to the prefecture for examination, and does not intend to submit these, there are no grounds for the ODB's claim.

In response to Okinawa Prefecture's statement that, "If the order of implementation changes, the premises upon which environmental conservation

measures are formulated will change, and the content of environmental conservation measures themselves will need to be changed," the ODB claims that even if it carries out reclamation works in reclamation area ② (the area surrounded by revetment K-4 and interior partition revetments N-3 and N-5), this is not expected to increase the environmental burden and it believes that it is unnecessary to change the environmental conservation measures, and thus approval for changes based on Point of Concern 4 is not required. However, the ODB has not shown any concrete evidence for assuming that it is unnecessary to change the environmental conservation measures, and there are no grounds for its assertion.

10 As outlined above, the ODB is forcing through construction work without undertaking prior consultation based on Point of Concern 2, which is in breach of Point of Concern 2. Having failed to obtain approval for changes to the Environmental Conservation Guidelines based on Point of Concern 4, the ODB is also forcibly undertaking construction work in breach of Point of Concern 4. It is evident that this construction will cause obstacles to environmental conservation to arise in regard to each of the items above.

Accordingly, this is recognized as having led to after-the-fact failure to meet the basic requirement to "Take action in sufficient consideration of environmental conservation"

However, despite the fact that Okinawa Prefecture has given repeated instructions to halt the construction work and undertake to consult and show that environmental conservation measures, etc. incorporate detailed consideration based on the implementation planning of the entire reclamation project, as well as instructing the ODB that changing the Environmental Conservation Guidelines will be necessary, the ODB has not followed these instructions. The ODB has continued construction work without undertaking to consult and show that environmental conservation measures, etc. incorporate detailed consideration based on the implementation planning of the entire reclamation project, and has shown a remarkable lack of intention to rectify this situation of its after-the-fact failure to meet the basic requirement to "Take action in sufficient consideration of environmental conservation"; thus, it is recognized that the ODB does not intend to obey administrative guidance from Okinawa Prefecture.

Instead of obeying the prefecture's administrative guidance, the ODB is actually threatening the public interest by forcing through construction work despite its after-the-fact failure to meet the basic requirement to "Take action in sufficient consideration of environmental conservation." The status granted to the ODB through the approval given for this project is no longer considered viable, and this

approval is now deemed to be revoked.

As a point of concern, Okinawa Prefecture attached a condition of prior consultation about environmental conservation measures in detailed consideration based on overall implementation planning, but overall implementation planning has not been shown by the ODB. As previously stated in items 1 to 9, the ODB is conducting construction without undertaking prior consultation based on Point of Concern 2. Moreover, as mentioned in items 5 to 9, construction is being carried out without approval for changes to the Environmental Conservation Guidelines based on Point of Concern 4.

Moreover, no evidence has been shown by the ODB to indicate that there is no risk of obstacles to environmental conservation occurring.

Accordingly, there are no grounds for the ODB's claim

In addition, as an "overall argument" the ODB claims that the proposed revocation of the approval given for this project (hereinafter, "this revocation") should be constrained by the legal principle restricting withdrawals, and that this revocation constitutes significant abuse of administrative authority.

However, in the case of an unlawful situation, such as cases of a defect in administrative action (including cases where such a defect arises later) or a violation of legal obligations, the general principle holds that the administrative authority will take action to rectify this problem, based on the principle of administration by law. The legal principle restricting withdrawals is ultimately an exceptional legal principle intended to protect the good faith of private individuals who rely upon the administration. For a state or one of its administrative agencies operating under the principle of administration by law and actively observing laws and regulations to assert the legal principle restricting withdrawals is contradictory and is not recognized. In addition, the legal principle restricting withdrawals is a legal principle recognized in regard to acquisition of property rights, retention of property benefits up to time of cancellation, monetary requests involving the period prior to cancellation, etc. In cases of project where licensing or qualifications are sought, in order to protect the public interest, this principle does not constitute grounds for future continuation of projects based on licensing or qualifications that were unlawfully granted. Furthermore, given that it is evident that the descriptions in the design overview document submitted by the ODB and the ODB's response concerning soil quality at the approval review stage were found to differ from actual soil quality, and that ODB has not complied with the Points of Concern attached to the approval given for this project, this revocation of approval is based on reasons attributable to the ODB's own failure to comply. Moreover, as the ODB claims that expenditure on construction work forcibly carried out in breach of the

Points of Concern represents a loss, the ODB is not recognized as requiring any protection under the legal principle restricting withdrawals. Furthermore, although the ODB claims this will decrease trust within the international community, these are not profits that the ODB can assert as grounds under the legal principle restricting withdrawals, and the empirical grounds for such a claim are also not recognized. Also, even if balance of profitability could be achieved by applying the legal principle restricting withdrawals, the reasons for this disadvantageous disposition include the ODB's failure to comply with the requirement of "sufficient consideration for disaster prevention," failure to comply with the Points of Concern that would ensure compliance with this requirement, failure to comply with the requirement of "sufficient consideration for environmental conservation," and failure to comply with the requirement of "appropriate and rational use of national land" – thus, upholding the validity of the approval given for this project could seriously harm the public interest by exposing people to serious physical and material threats, threatening healthy economic development, etc. deriving from appropriate use of national land in the prefecture, threatening the irreplaceable and precious natural environment of Oura Bay, etc. The necessity of revoking this approval in the public interest is recognized to be extremely high; conversely, the necessity for MCAS Futenma to be located in Okinawa is not recognized, and this issue could be resolved by relocating it either outside the prefecture or outside Japan. The construction of a full-scale permanent new base in the present day would entrench into the future the excessive burden placed on Okinawa by US military bases. As for the construction of the Henoko New Base, since it is not recognized that this is of particular public interest, even if balance of profitability could be achieved by applying the legal principle restricting withdrawals, it is not recognized that this would limit this revocation of approval.

Regarding the ODB's claim that this revocation constitutes significant abuse of administrative authority, this revocation of approval has been undertaken to eliminate the unlawful state under which the requirements for approval were not satisfied, as well as the unlawful state of ODB's breaches of obligation. This course of action stands to reason for an administrative agency acting in accordance with the principle of administration by law. Moreover, Okinawa Prefecture did not abruptly seek to revoke this approval, but repeatedly gave administrative guidance to the ODB to the effect that commencing construction works before consulting with the prefecture would constitute a breach of the ODB's obligations. Due to the fact that the ODB continued on with construction without complying with this guidance, a situation resulted that could not be ignored in light of public interest, and which has resulted in the revocation of approval for this project. Furthermore, in full respect of determinations made by scholars in various fields of administrative law and the natural sciences from whom opinions were sought, there are no grounds for the ODB's claim that this constitutes

significant abuse of administrative authority.

Given the above, there are no grounds for the ODB's claim as an overall argument.