STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

March 18, 2010

Fisher's Terrace, LLC
ATTN: Philip Bretsch
500 East Broadway, Suite 110
Vancouver, WA 98660

RE: Water Quality Certification Order No. **6730** for Corps Public Notice No. NWS-2006-1103-CRS to construct a multi-store regional retail center near the City of Ridgefield, Clark County, Washington

Dear Mr. Bretsch:

On March 26, 2009, Fisher's Terrace, LLC, submitted a revised Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act to construct a multi-store regional retail center and associated parking lots, access roads, and utilities at NE 179th Street and NE 15th Avenue, near Ridgefield, Clark County, Washington. Ecology issued a public notice for the proposed project on April 6, 2009.

The proposed 42.5-acre development will directly impact 3.05 acres of Category III wetlands, and 0.11 acres of Category IV wetlands. To compensate for the proposed unavoidable direct wetland impacts, 34.91 acres of Category I wetland and adjacent riparian floodplain uplands would be preserved and enhanced (planted with woody species). Enhancement would include 16.19 acres of wetland and 4.65 acres of upland. Additionally, refuse would be removed and site access would be controlled.

On behalf of the State of Washington, Ecology certifies that the work described in the JARPA received on March 26, 2009 and the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

If you have any questions, please contact Lori Ochoa at (360) 407-6926. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,

Perry J Lund, Unit Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

PJL:LO:dn
Enclosures

By Certified Mail 7009 1410 0002 4420 2819

cc: Mr. Francis Naglich, Ecological Land Services
Steve Manlow, U.S. Army Corps of Engineers
Dave Howe, WDFW
Brent Davis, Clark County

e-cc: ECY RE FEDPERMITS
Loree Randall – Ecology, HQ, SEA
Jessica Moore – Ecology, HQ, SEA
Lori Ochoa – Ecology, SWRO, SEA
Mark Cline – Ecology, SWRO, SEA
Deborah Cornett – Ecology, SWRO,WQ

IN THE MATTER OF GRANTING A WATER QUALITY CERTIFICATION TO Fisher's Terrace VII, LLC ATTN: Philip Bretsch in accordance with 33 U.S.C. 1341 (FWPCA § 401), RCW 90.48.120, RCW 90.48.260 and Chapter 173-201A WAC	)))))))	**ORDER # 6730** **Corps Reference No. NWS-2006-1103-CRS** To construct the 179th Street Regional Retail Center Project, Wetlands, Clark County, Washington

TO: Fisher's Terrace VII, LLC
ATTN: Philip Bretsch
500 East Broadway, Suite 110
Vancouver, Washington 98660

On March 26, 2009, Fisher's Terrace VII, LLC submitted a revised Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification. A public notice regarding the request was distributed by Ecology for the above-referenced project pursuant to the provisions Chapter 173-225 WAC on April 6, 2009.

The Applicant proposes to construct a multi-store regional retail center of approximately 525,000 square feet on a 42.5 acre site located south of NE 179th Street, Clark County, WRIA 28, Salmon/Washougal Watershed; in the NW Quarter of Section 14, Township 3 North, Range 1 east of the Willamette Meridian, Washington. The retail center would provide department stores, home improvement, general and specialty apparel, a cinema, and restaurants.

The proposed development will directly impact 0.11 acres of Category IV wetlands (Wetlands A and B) and 3.05 acres of Category III wetlands (Wetlands C and D). The impacted wetlands are emergent and forested according to Cowardin and are classified as depressional and slope.

To compensate for the proposed unavoidable direct wetland impacts, 34.91 acres of Category I wetland and adjacent riparian floodplain uplands would be preserved and enhanced. Enhancement would include 16.19 acres of wetland and 4.65 acres of upland. Additionally, refuse would be removed and site access would be controlled.

Offsite mitigation is proposed due to the lack of onsite mitigation alternatives. The mitigation site is located within the same WRIA as the impact site and was ranked in the Clark County Watershed Characterization as a top priority for protection. The mitigation site was selected for its size, quality, diversity of available mitigation options, and its "at-risk" status. The parcel would be eligible for future development without preservation.

AUTHORITIES:

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §1311, 1312, 1313, 1316, and 1317 (FWPCA § 301, 303, 306 and 307);
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW, and with other applicable state laws; and,
3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

WATER QUALITY CERTIFICATION CONDITIONS:

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. §1341, RCW 90.48.120, RCW 90.48.260 Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

A. General Conditions:

1. For purposes of this Order, the term "Applicant" shall mean Fisher's Terrace VII, LLC and its agents, assignees and contractors.
2. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Southwest Regional Office, Attn: Federal Permit Coordinator, SEA Program, P.O. Box 47775, Olympia, WA 98504-7775. Any submittals shall reference **Order No. 6730** and Corps No. **NWS-2006-1103-CRS.**
3. Work authorized by this Order is limited to the work described in the revised JARPA received by Ecology on March 26, 2009. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.

4. Within 30 days of receipt of an updated JARPA Ecology will determine if the revised project requires a new water quality certification and public notice or if a modification to this Order is required.
5. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue a Section 404 permit.
6. This Order does not exempt, and is provisional upon compliance with other statutes and codes administered by federal, state, and local agencies.
7. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
8. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
9. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (*e.g.*, violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
10. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project.
11. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
12. Failure to comply with the Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

B. Timing:

1. This Order is valid until all compliance requirements in this document have been met.

C. Notification Requirements:

1. The Applicant shall provide written notification (FAX, e-mail or mail) to Ecology's Southwest Regional Office Federal Project Coordinator in accordance with condition A.2 above for the following activities:

a. At least ten (10) days prior to a pre-construction meeting
b. At least ten (10) days prior to the onset of any work on site
c. At least ten (10) days prior to the onset of in-water work, including wetlands
d. At least ten (10) days prior to the onset of work at the wetland mitigation site
e. Immediately following a violation of the state water quality standards or any condition of this Order
f. Within fourteen (14) days after completion of construction.

D. Construction, Equipment Staging and Maintenance:

Construction Conditions:

1. During construction, the Applicant shall comply with all stormwater requirements within the current NPDES Construction Stormwater General Permit issued for this project.
2. Erosion and sediment control devices (Filter or silt fences, etc.) and other BMP's intended to trap sediment on-site shall be in place before starting project construction and shall be maintained throughout construction until the site is stabilized.
3. All construction debris shall be properly contained and disposed of at an approved upland location so that it cannot enter wetlands and/or wetland buffers.
4. All work within the project limits shall be clearly marked/staked prior to construction. Clearing limits, travel corridors and stockpile sites shall be clearly marked. Sensitive areas and buffers that are to be protected from disturbance shall be marked so as to be clearly visible to equipment operators. All project staff shall be trained to recognize construction fencing or flagging that identifies sensitive area boundaries. Equipment shall enter and operate within the marked clearing limits corridors and stockpile areas.
5. Machinery and equipment used during construction shall be serviced, fueled, and maintained on uplands in a confined area in order to prevent containment to waters of the state. Fueling areas will be provided with adequate spill containment.
6. The Applicant shall establish a separate contained area for washing down vehicles and equipment, which does not have any possibility of draining to surface waters and wetlands. No wash water containing sediments, oils, grease, or other hazardous materials resulting from wash down of the work area, tools, and equipment including concrete delivery trucks or other equipment used for concrete work shall not be discharged into state waters or storm drains.

E. Wetland Compensatory Mitigation Conditions:

1. The Applicant shall mitigate wetland impacts as described in the *Wetland Mitigation Plan (Revised) for the NE 179th Street Regional Retail Center, Clark County, WA* prepared by Ecological Land Services, Inc dated "revised May 1, 2009" except as modified in this Order or revised and approved by Ecology.

2. The Applicant shall submit any changes to the mitigation plan in writing to Ecology (per condition A.2. above) for review and approval before work begins or when problems occur during construction requiring plan changes.
3. To ensure proper installation, the Applicant's wetland professional must supervise and inspect all mitigation site construction and planting.

Implementation

4. Unless otherwise approved by Ecology in writing, the Applicant shall begin the compensatory mitigation project before or concurrent with impacting wetlands. Ecology may require additional compensation to account for additional temporal loss if the mitigation is not completed in a timely manner.
5. If the mitigation site(s) cannot be completed within 13 months of the date of this Order, the Applicant shall inform Ecology, in writing, of the status of
   a) The NE 179th Street Regional Retail Center project.
   b) The Lake River mitigation site.

   With the:
   c) Reason for the delay.
   d) Expected date of completion.

   The Applicant shall submit an updated written notification every 12 months thereafter until the NE 179th Street Regional Retail Center project and Lake River mitigation site are complete.
6. The Applicant shall ensure that all excess excavated site material is disposed of in an appropriate location outside of wetlands and their buffers at the wetland mitigation site and above the 100-year floodplain.
7. The Applicant shall ensure that no material is stockpiled within existing wetlands and their buffers at the wetland mitigation site(s) at any time, unless provided for in the Ecology-approved Mitigation Plan.
8. The Applicant shall ensure that no construction debris is deposited within existing wetland and their buffers at the wetland mitigation site(s) at any time, unless provided for in the Ecology approved Mitigation Plan.
9. The Applicant shall not use Polyacrylamide on exposed or disturbed soil at the mitigation site(s).
10. If seeding is used at the wetland mitigation site, the seed mix must contain native, annual, non-invasive plant species.
11. The Applicant shall place signs at the mitigation area's boundaries, including buffers, every 100 feet (or line of sight) to mark the area as the Lake River wetland mitigation site.
12. Upon completion of site-grading and prior to planting, the Applicant shall submit to Ecology written confirmation that the finished grades are consistent with the approved Mitigation Plan or subsequent Ecology-approved plan changes. Written confirmation

can be in the form of a signed letter from the surveyor or project engineer indicating how final elevations were confirmed and whether those elevations are consistent with the Mitigation Plan.

13. Within 90 days of completing construction and planting of the mitigation site(s), the Applicant shall submit to Ecology (see A.2) one hard copy and one electronic file of the final as-built report including maps. The as-built report must:
    a) Document site conditions at Year Zero.
    b) Include the information listed in Attachment B (Information Required for As-built Reports).
    c) Include documentation of the recorded legal mechanism required in Condition E 14 below.

14. Within 90 days of the date the Order was issued, the Applicant shall record a conservation easement for the Lake River mitigation site, a copy of this Order, and a site map indicating the location of mitigation site(s) and their buffers. These documents must be recorded with the County Recording Office, Registrar of Deeds, or other official responsible for maintaining records for, or interest in, real property.

Monitoring and Maintenance:

15. The Applicant shall water and maintain all mitigation site plantings so as to meet the Mitigation Plan's performance standards.

16. The Applicant shall monitor the mitigation site for a minimum of 5 years. The Applicant shall use the monitoring methods described on pages 17-19 of the Mitigation Plan.

17. The Applicant shall submit to Ecology (see A.2) one hard and one electronic copy of monitoring reports documenting mitigation site conditions for years 1, 2, 3, and 5. At a minimum, the reports must contain the information in Attachment C (Information Required for Monitoring Reports). The Applicant shall submit the first monitoring report 12 months after completing the mitigation site construction and planting.

18. The Applicant shall implement the Mitigation Plan's contingency measures if the Mitigation Plan's goals, objectives, or performance standards are not being met.

19. Prior to implementing contingency measures not specified in the Mitigation Plan, the Applicant shall consult with and obtain written approval from Ecology for the changes.

20. When necessary to meet the performance standards, the Applicant shall replace dead or dying plants with the same species, or an appropriate native plant alternative, during the first available planting season and note species, numbers, and approximate locations of all replacement plants in the subsequent monitoring report.

21. If the Applicant has not met all conditions and performance standards for the mitigation site at the end of the monitoring period, Ecology may require additional monitoring, additional mitigation, or both.

22. Until the Applicant has received written notice from Ecology that the Mitigation Plan

has been fully implemented, the Applicant's obligation under Condition D.1 to mitigate for wetland impacts is not met.

23. The property owner shall grant Ecology access to the mitigation area for inspection during the 5 year monitoring period or until mitigation success has been achieved.

G. Emergency/Contingency Measures:

1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project, and shall have spill cleanup materials and an emergency call list available on site.

2. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed or dying fish, or any discharge of oil, fuel, or chemicals into state waters, including wetlands, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant or operator shall immediately take the following actions:
   a. Cease operations that are causing the compliance problem.
   b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
   c. In the event of finding distressed or dying fish, the applicant shall collect fish specimens and water samples in the affected area within the first hour of the event. These samples shall be held in refrigeration or on ice until the applicant is instructed by Ecology on what to do with them. Ecology may require analyses of these samples before allowing the work to resume.
   d. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
   e. Immediately notify Ecology's Southwest Regional Spill Response Office at (360) 407-6300 and the Washington State Department of Fish and Wildlife of the nature of the problem, any actions taken to correct the problem, and any proposed changes in operations to prevent further problems.
   f. Submit a detailed written report to Ecology's Federal Permit Coordinator within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

   Compliance with this condition does not relieve the Applicant from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.

3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters, including wetlands.

4. If at any time during work the proponent finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the proponent

shall immediately notify Ecology's Southwest Regional Spill Response Office at 360 407-6300.

H. Appeal Process:

You have a right to appeal this Order. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:		Deliver your appeal in person to:
The Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903	OR	The Pollution Control Hearings Board 4224 – 6th Ave SE Rowe Six, Bldg 2 Lacey, WA 98503

2. To serve your appeal on the Department of Ecology

Mail appeal to:		Deliver your appeal in person to:
The Department of Ecology Appeals Coordinator P.O. Box 47608 Olympia, WA 98504-7608	OR	The Department of Ecology Appeals Coordinator 300 Desmond Dr SE Lacey, WA 98503

3. And send a copy of your appeal to:

Lori Ochoa
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov

To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Ch. 43.21B RCW.

DATED this 18 day of MARCH, 2010, at Lacey, Washington.

Perry J Lund, Unit Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

Attachment A
Statement of Understanding
Water Quality Certification Conditions
(See Condition A. 10.)

Fisher's Terrace VII, LLC.
179th Street Regional Retail Center
Water Quality Certification Order # **6730**
And
Corps Reference # NWS-2006-1103-CRS

I, _____, state that, I will be involved as an agent or contractor for Fisher's Terrace, LLC, in the site preparation and/or construction of the 179th Street Regional Retail Center located at south of NE 179th Street, near the City of Ridgefield, Clark County, Washington. I further state that I have read and understand the relevant conditions of the Washington Department of Ecology Water Quality Certification Order **#6730** and the applicable permits and approvals referenced therein which pertain to the project-related work for which I am responsible.

_____ _____
Signature Date

_____
Title Phone

_____
Company

Attachment B
Information for As-built Reports
(See Condition E.13.)

Fisher's Terrace VII, LLC
179th Street Regional Retail Center
Water Quality Certification Order # **6730**
And
Corps Reference # NWS-2006-1103-CRS

Background Information

1) Project name.
2) Ecology docket number and the Corps reference number.
3) Name and contact information for the parties responsible for the mitigation site including:
    a) The applicant.
    b) The landowner.
    c) Wetland professional on site during construction of the compensatory mitigation site.
4) Name and contact information for the party responsible for preparing the report.
5) Who the report was prepared for (name, address, and phone number) {*if different from number 3 above.*}
6) Month and year the report was produced.

The Development Site

7) Brief description of the development project. Include:
    a) Directions to the site.
    b) Month and year construction of the development project started and ended.
    c) Area (acres) and type(s) (rating category, HGM classification, and Cowardin classification) of wetlands that were **actually** impacted by the development project, including temporary impacts.

The Compensatory Mitigation Project

8) Brief description of the **final** compensatory mitigation project with any changes from the approved plan made during construction. Include:
    a) Directions to the site.
    b) Who completed the compensatory mitigation project (name, address, and phone number.
    c) Acreage and type(s) (re-establishment, rehabilitation, creation, enhancement, and preservation) of mitigation authorized to compensate for wetland impacts.
    d) Important dates including:
        i. Month and year the wetland impacts occurred.
        ii. When work on the compensatory mitigation site began and ended.
        iii. When different activities began and ended such as grading, removal of invasive plants, installing plants, and installing habitat features.
9) Description of any problems encountered and solutions implemented (with reasons for changes) during construction of the compensatory mitigation site.

10) Any changes to the goals, objectives, and performance standards of the compensatory mitigation project.
11) List of any follow-up actions needed, with a schedule.
12) Final site maps (8 1/2" x 11" or larger) of the compensatory mitigation site(s) including the following (at a minimum).
    a) Geographic location of the site with landmarks;
    b) Clear delineation of the project perimeter(s);
    c) Topography (with a description of how elevations were determined),;
    d) Installed planting scheme (quantities, densities, sizes, and approximate locations of plants, as well as the source(s) of plant material);
    e) Location of habitat features;
    f) Location of permanent photo stations.

    The final site maps should reflect on-the-ground conditions after the site work is completed. Include the month and year when the maps were produced and, if applicable, when information was collected.
13) Photographs of the site at as-built conditions taken from permanent photo stations. We recommend photo pans.
14) Copies of any records of deed notification or conservation easements.

Attachment C
Required Information for Monitoring Reports
(See Condition E.17.)

Fisher's Terrace VII, LLC
179th Street Regional Retail Center
Water Quality Certification Order # **6730**
And
Corps Reference # NWS-2006-1103-CRS

Ecology requires the following information, for monitoring reports submitted under this Order. Ecology will accept additional information that may be required by other regulators.

Background Information

1) Project name
2) Ecology docket number and Corps reference number
3) Name and contact information of the parties responsible for the mitigation site including:
    a) The applicant
    b) The landowner
4) Name and contact information for the party responsible for the monitoring activities and report
5) Who the report was prepared for (name, address, and phone number) {*if different from number 3 above.*}
6) Month and year the monitoring data were collected
7) Month and year the report was produced

Mitigation Project Information

8) Brief description of the mitigation project including:
    a) Directions to the site
    b) Acreage and type(s) (re-establishment, rehabilitation, creation, enhancement, and preservation) of mitigation authorized to compensate for wetland impacts
9) Brief description of monitoring approach and methods.
10) A list of the goals and objectives for the mitigation project
11) Summary table of monitoring data compared with performance standards. Using the monitoring data, describe how the site is developing toward goals and objectives and whether the project is in compliance with performance standards
12) Summary (including dates) of management actions (maintenance, contingencies, and corrective actions) implemented at the site(s)
13) Summary of any difficulties or significant events that occurred on the site that may affect the ultimate success of the project
14) Specific recommendations for any additional corrective actions or adaptive management with a time table
15) Summary of any lessons learned
16) Site maps (8 1/2" x 11" or larger) of the compensatory mitigation site(s) including the following (at a minimum):

a) The month and year when the maps were produced and, if applicable, when information was collected
b) The geographic location of the site with landmarks.
c) Clear delineation of the project perimeter(s).
d) Species, numbers, and approximate locations of all replanted material vegetation.
e) Location of habitat features.
f) Location of permanent photo stations and location of any other photos.
g) Location of sampling points or transects.

17) Photographs taken at permanent photo stations (and other photographs as needed) from the most recent monitoring visit, which are dated and clearly indicate the direction from which the photo was taken. We recommend photo pans.